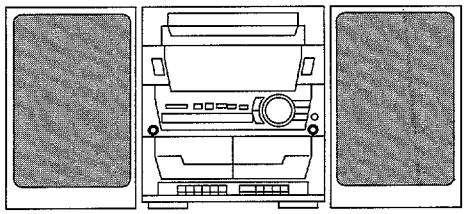
aiwa

aiwa SERVICE

Z-L30

SERVICE MANUAL



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : TNZ1788-8MA5
- BASIC CD MECHANISM : 6ZG-1 SDSHNM
- TYPE : K

REVISION PUBLISHING

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
Z – L30	CX – ZL30	SX – WZL30	RC – ZAS02

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" Z-L30 (K), (S/M Code No. 09-992-403-3T2).
- If requiring information about the CD mechanism, see Service Manual of 6ZG-1, (S/M Code No. 09-984-249-9OT).

S/M Code No. 09–995–403–3R2

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SPECIFICATIONS

<FM Tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity(IHF)	16.8 dBf
Antenna terminals	75 ohms (unbalanced)

<MW Tuner section>

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 uV/m
Antenna	Loop antenna

<LW Tuner section>

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 uV/m
Antenna	Loop antenna

<Amplifier section>

Mid-high frequency amplifier	
Power output	Rated: 12 W + 12 W (8 ohms, T.H.D 1 %, 1 kHz) Reference: 15 W + 15 W (8 ohms, T.H.D. 10 %, 1 kHz)
Total harmonic distortion	0.06 % (5 W, 1 kHz, 8 ohms)
Low frequency amplifier	
Power output	Rated: 32 W + 32 W (4 ohms, T.H.D 1 %, 135 Hz) Reference: 40 W + 40 W (4 ohms, T.H.D. 10 %, 135 Hz)
Total harmonic distortion	0.06 % (15 W, 135 Hz, 4 ohms)
Inputs	VIDEO/AUX : 310 mV (adjustable) PHONO : 400 mV
Outputs	CD DIGITAL OUT (OPTICAL) SPEAKERS HIGH FREQ : accept speakers of 8 ohms or more SPEAKERS LOW FREQ : accept speakers of 4 ohms or more PHONES (stereo jack) : accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 12500 Hz
Recording system	AC bias
Heads	Deck 1 : Recording/Playback head x 1, erase head x 1 Deck 2 : Playback head x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX-WZL30>

Cabinet type	3 way, built-in subwoofer
Speakers	Subwoofer : 220 mm ($8^3/_4$ in.) cone type Full range : 120 mm ($4^3/_4$ in.) cone type Super Tweeter : 20 mm ($^{13}/_{16}$ in.) ceramic type
Impedance	4 ohms / 8 ohms
Output sound pressure level	89 dB/W/m
Dimensions (W x H x D)	290 x 444 x 296 mm ($11^1/_2$ x $17^1/_2$ x $11^3/_4$ in.)
Weight	7.4 kg (16 lbs. 5 oz)

<General>

Power requirements	230 V AC, 50 Hz
Power consumption	130 W
Dimensions of main unit	360 x 394.5 x 386 mm ($14^1/_4$ x $15^5/_8$ x $15^1/_4$ in.)
Weight of main unit	9 kg (19 lbs. 14 oz)

• Design and specifications are subject to change without notice.

NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.
In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

① Remove the AC power cord.
② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
⑤ Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.

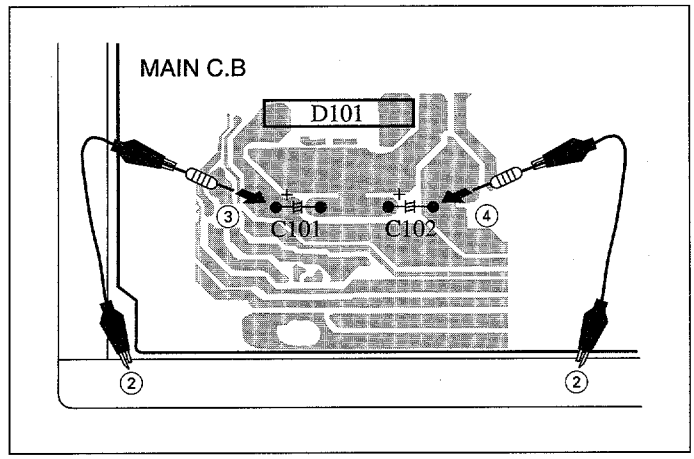


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.
When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

- Good or no good judgement of the MICROCOMPUTER

① Turn on the AC main power.
② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

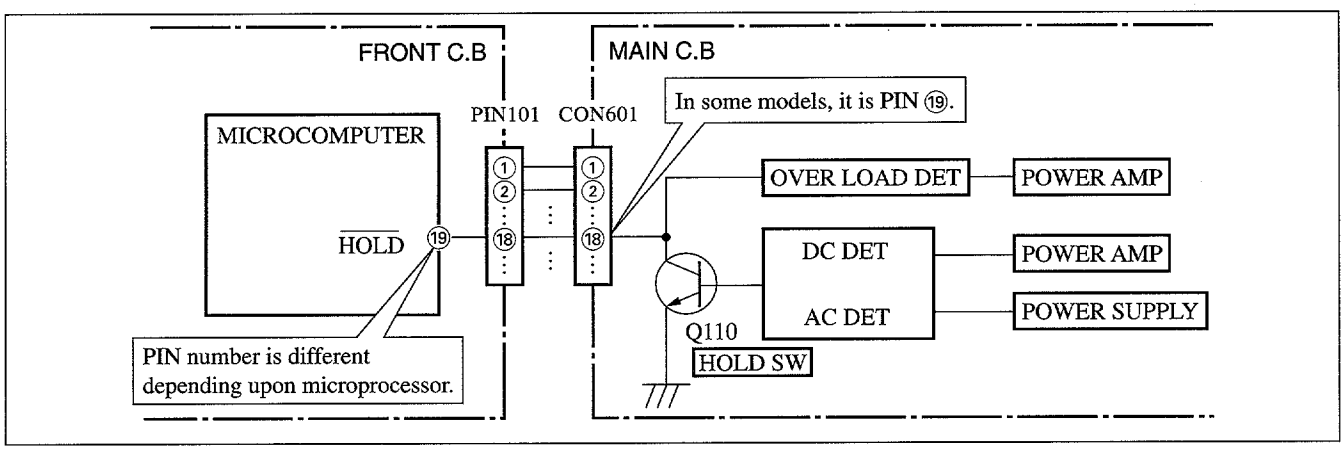


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.
When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

① Remove the AC power cord.

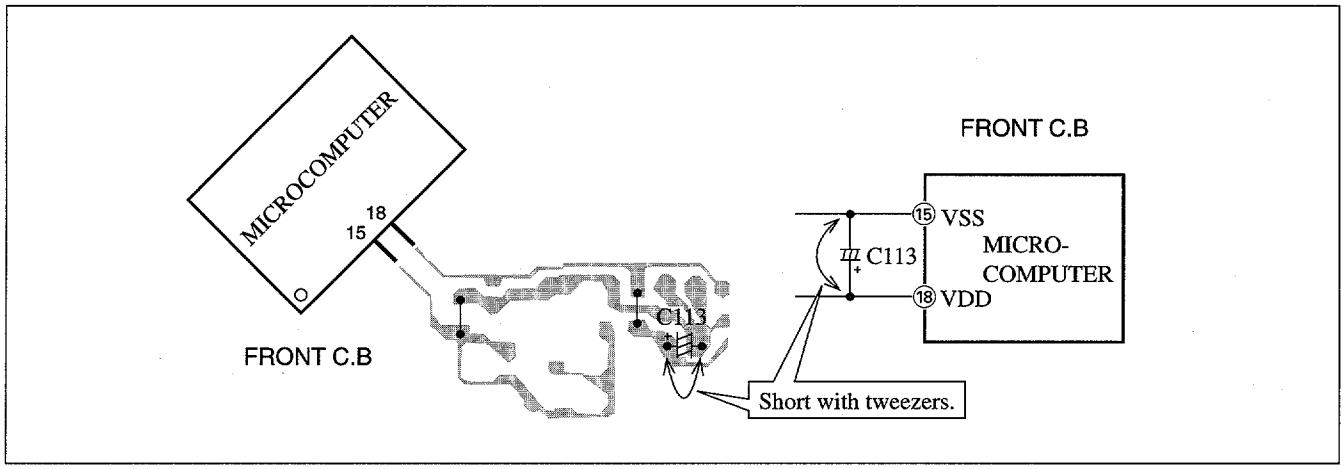


Fig-2-2

② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.
③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

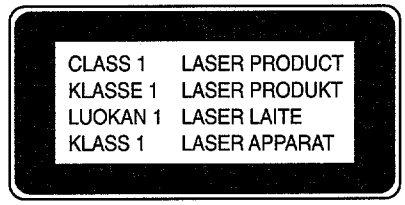
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!
Usynlig laserstråling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



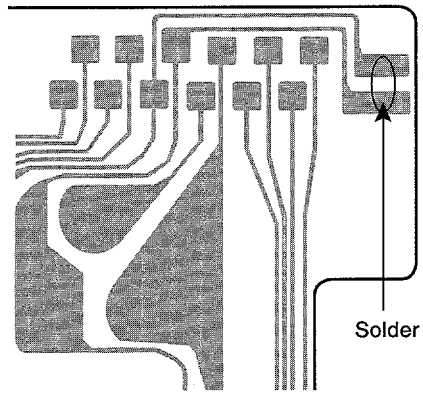
Precaution to replace Optical block

(KSS – 213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in right figure.

PICK-UP Assy P.C.B



ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-070-127-110		IC,LC72131 D
	87-A20-913-010		IC,LA1837NL
	8Z-MA4-603-010		C-IC,LC866560W-5K56
	87-A20-914-010		IC,SPS-442-1-F
	87-070-289-040		IC,BU 2092F
	87-017-915-080		IC,BU4094BCF
	87-A20-455-010		IC,HA12211
	87-A21-023-040		C-IC,BA3835F
	87-A21-031-040		C-IC,BU4551BF
	87-A21-202-040		C-IC,M62445AFP
	87-A20-440-040		C-IC,BU1920FS
TRANSISTOR			
	87-026-245-080		TR,DTC114ES
	87-026-609-080		TR,KTA1266GR
	87-A30-198-080		TR,KTC3199GR
	89-213-702-010		TR,2SB1370 (1.8W)
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-A30-196-080		TR,2SC4115SRS
	87-A30-072-080		C-TR,RT1P 144C
	87-A30-107-070		C-TR,CMBT5401
	89-327-143-080		TR,2SC2714 (0.1W)
	87-A30-087-080		C-FET,2SK2158
	87-A30-073-080		C-TR,RT1N 141C
	89-505-434-540		C-FET,2SK543(4/5)
	87-A30-190-080		TR,CC5551
	87-A30-097-010		TR,FN1016
	87-A30-098-010		TR,FP1016
	87-A30-109-010		TR,2SD 2495
	87-A30-108-010		TR,2SB1626
	87-A30-119-040		C-TR,2SC3906K R
	87-026-580-080		C-TR,DTA123JK
	89-112-965-080		TR,2SA1296 (0.75W)
	87-A30-105-080		C-TR,RT1P 441C
	87-A30-074-080		C-TR,RT1P 141C
	87-A30-234-080		TR,CSC4115BC
	87-A30-086-070		C-TR,CSD1306E
	87-A30-142-040		C-TR,DTA123EKA
DIODE			
	87-020-465-080		DIODE,1SS133 (110MA)
	87-017-447-010		DIODE,GBU4DL-6419
	87-070-274-080		DIODE,1N4003 SEM
	87-A40-435-080		ZENER,MTZJ30D
	87-A40-345-080		ZENER,MTZJ10C
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-004-080		ZENER,MTZJ16A
	87-A40-234-080		ZENER,MTZJ5.6A
	87-A40-488-080		DIODE,1SS244
	87-A40-509-080		ZENER,MTZJ6.8C
	87-017-932-080		ZENER,MTJ6.2B
	87-A40-002-080		ZENER,MTZJ5.1C
	87-A40-438-080		ZENER,MTZJ4.7A
MAIN C.B			
C1	87-012-369-080		C-CAP,S 0.047-50F
C2	87-012-369-080		C-CAP,S 0.047-50F
C3	87-012-368-080		C-CAP,S 0.1-50 F
C4	87-012-368-080		C-CAP,S 0.1-50 F
C5	87-012-368-080		C-CAP,S 0.1-50 F
C6	87-012-368-080		C-CAP,S 0.1-50 F
C9	87-010-928-090		CAP,E 4700-25 SMG
C10	87-010-928-090		CAP,E 4700-25 SMG
C21	87-010-406-080		CAP, ELECT 22-50
C22	87-010-406-080		CAP, ELECT 22-50
C23	87-010-247-080		CAP, ELECT 100-50V
C24	87-010-247-080		CAP, ELECT 100-50V
C25	87-010-430-080		CAP, ELECT 100-63
C26	87-010-263-080		CAP, ELECT 100-10V
C27	87-010-197-080		CAP,0.01-25
C29	87-010-408-080		CAP, ELECT 47-50V
C30	87-010-112-080		CAP, ELECT 100-16V
C31	87-010-235-080		CAP,E 470-16 SME
C33	87-010-405-080		CAP,E 10-50 M 11L SME
C34	87-010-405-080		CAP,E 10-50 M 11L SME
C61	87-010-260-080		CAP, ELECT 47-25V
C62	87-010-403-080		CAP, ELECT 3.3-50V
C101	87-010-178-080		CHIP CAP 1000P
C102	87-010-178-080		CHIP CAP 1000P
C103	87-010-405-080		CAP, ELECT 10-50V
C104	87-010-405-080		CAP, ELECT 10-50V
C107	87-010-408-080		CAP, ELECT 47-50V
C108	87-010-408-080		CAP, ELECT 47-50V
C109	87-010-322-080		C-CAP,S 100P-50 CH
C110	87-010-322-080		C-CAP,S 100P-50 CH
C111	87-010-260-080		CAP, ELECT 47-25V
C112	87-010-260-080		CAP, ELECT 47-25V
C113	87-A10-812-080		C-CAP,S 220P-200 J CH
C114	87-A10-812-080		C-CAP,S 220P-200 J CH
C117	87-016-247-080		C-CAP,0.1-50 F
C118	87-016-247-080		C-CAP,0.1-50 F
C121	87-010-178-080		CHIP CAP 1000P
C122	87-010-178-080		CHIP CAP 1000P
C123	87-010-176-080		C-CAP,S 680P-50 SL
C124	87-010-176-080		C-CAP,S 680P-50 SL
C125	87-012-368-080		C-CAP,S 0.1-50 F
C126	87-012-368-080		C-CAP,S 0.1-50 F
C127	87-012-368-080		C-CAP,S 0.1-50 F
C128	87-012-368-080		C-CAP,S 0.1-50 F
C129	87-010-191-080		C-CAP,S 0.015-50 ZF
C130	87-010-191-080		C-CAP,S 0.015-50 ZF
C131	87-010-197-080		CAP, CHIP 0.01 DM
C132	87-010-197-080		CAP, CHIP 0.01 DM
C133	87-010-197-080		CAP, CHIP 0.01 DM
C134	87-010-408-080		CAP, ELECT 47-50V
C203	87-010-986-080		C-CAP,S 820P-50 J CH
C204	87-010-986-080		C-CAP,S 820P-50 J CH
C209	87-010-403-080		CAP, ELECT 3.3-50V
C210	87-010-403-080		CAP, ELECT 3.3-50V
C211	87-010-185-080		CAP,CHIP S 3900P
C212	87-010-185-080		CAP,CHIP S 3900P
C213	87-010-403-080		CAP, ELECT 3.3-50V
C214	87-010-403-080		CAP, ELECT 3.3-50V
C215	87-010-322-080		C-CAP,S 100P-50 CH
C216	87-010-322-080		C-CAP,S 100P-50 CH
C217	87-010-260-080		CAP, ELECT 47-25V
C218	87-010-260-080		CAP, ELECT 47-25V
C219	87-A10-946-080		C-CAP,S 220P-100 J CH
C220	87-A10-946-080		C-CAP,S 220P-100 J CH
C225	87-012-368-080		C-CAP,S 0.1-50 F
C226	87-012-368-080		C-CAP,S 0.1-50 F
C227	87-010-186-080		CAP,CHIP 4700P
C228	87-010-186-080		CAP,CHIP 4700P
C229	87-010-993-080		C-CAP,S 0.056-25 B
C230	87-010-993-080		C-CAP,S 0.056-25 B
C231	87-012-368-080		C-CAP,S 0.1-50 F
C232	87-012-368-080		C-CAP,S 0.1-50 F
C233	87-010-190-080		S CHIP F 0.01
C234	87-010-190-080		S CHIP F 0.01
C239	87-012-368-080		C-CAP,S 0.1-50 F
C301	87-010-318-080		C-CAP,S 47P-50 CH
C302	87-010-318-080		C-CAP,S 47P-50 CH

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C303	87-012-157-080		C-CAP,S 330P-50 CH
C304	87-012-157-080		C-CAP,S 330P-50 CH
C305	87-010-854-080		CAP, CHIP S 560P CH
C306	87-010-854-080		CAP, CHIP S 560P CH
C307	87-012-368-080		C-CAP,S 0.1-50 F
C309	87-012-368-080		C-CAP,S 0.1-50 F
C310	87-012-368-080		C-CAP,S 0.1-50 F
C311	87-010-198-080		CAP, CHIP 0.022
C312	87-010-198-080		CAP, CHIP 0.022
C313	87-010-180-080		C-CER 1500P
C314	87-010-180-080		C-CER 1500P
C315	87-010-182-080		C-CAP,S 2200P-50 B
C316	87-010-182-080		C-CAP,S 2200P-50 B
C321	87-016-492-080		C-CAP,S 0.33-16 FZ
C322	87-016-492-080		C-CAP,S 0.33-16 FZ
C324	87-010-260-080		CAP, ELECT 47-25V
C325	87-010-370-080		CAP,E 330-6.3 SME
C327	87-010-404-080		CAP, ELECT 4.7-50V
C328	87-010-404-080		CAP, ELECT 4.7-50V
C332	87-012-368-080		C-CAP,S 0.1-50 F
C335	87-010-401-080		CAP, ELECT 1-50V
C336	87-010-401-080		CAP, ELECT 1-50V
C337	87-012-368-080		C-CAP,S 0.1-50 F
C339	87-012-368-080		C-CAP,S 0.1-50 F
C340	87-012-368-080		C-CAP,S 0.1-50 F
C351	87-012-140-080		CAP 470P
C352	87-012-140-080		CAP 470P
C354	87-010-175-080		CAP 560P
C355	87-010-178-080		CHIP CAP 1000P
C356	87-010-260-080		CAP, ELECT 47-25V
C357	87-010-197-080		CAP, CHIP 0.01 DM
C358	87-010-183-080		C-CAP,S 2700P-50 B
C359	87-010-183-080		C-CAP,S 2700P-50 B
C360	87-010-183-080		C-CAP,S 2700P-50 B
C370	87-012-368-080		C-CAP,S 0.1-50 F
C371	87-010-175-080		CAP 560P
C372	87-010-175-080		CAP 560P
C373	87-016-083-080		C-CAP,S 0.15-16 RK
C374	87-016-083-080		C-CAP,S 0.15-16 RK
C378	87-012-368-080		C-CAP,S 0.1-50 F
C379	87-010-406-080		CAP, ELECT 22-50
C380	87-010-406-080		CAP, ELECT 22-50
C386	87-012-368-080		C-CAP,S 0.1-50 F
C388	87-012-156-080		C-CAP,S 220P-50 CH
C389	87-010-260-080		CAP,E 47-25 M 11L
C391	87-010-319-080		C-CAP,S 56P-50 CH
C392	87-010-319-080		C-CAP,S 56P-50 CH
C393	87-010-319-080		C-CAP,S 56P-50 CH
C394	87-010-319-080		C-CAP,S 56P-50 CH
C451	87-010-401-080		CAP, ELECT 1-50V
C452	87-010-401-080		CAP, ELECT 1-50V
C457	87-012-368-080		C-CAP,S 0.1-50 F
C458	87-012-368-080		C-CAP,S 0.1-50 F
C461	87-010-544-080		CAP, ELECT 0.1-50V
C601	87-010-180-080		C-CER 1500P
C602	87-010-180-080		C-CER 1500P
C605	87-010-318-080		C-CAP,S 47P-50 CH
C606	87-010-318-080		C-CAP,S 47P-50 CH
C607	87-010-318-080		C-CAP,S 47P-50 CH
C608	87-010-318-080		C-CAP,S 47P-50 CH
C611	87-010-197-080		C-CAP,S 0.01-25 KB
C612	87-010-322-080		C-CAP,S 100P-50 J CH
C613	87-016-081-080		C-CAP,S 0.1-16 RK
C614	87-016-081-080		C-CAP,S 0.1-16 RK
C619	87-010-185-080		C-CAP,S 3900P-50 B
C620	87-010-185-080		C-CAP,S 3900P-50 B
C621	87-010-401-080		CAP, ELECT 1-50V
C622	87-010-401-080		CAP, ELECT 1-50V
C625	87-010-404-080		CAP, ELECT 4.7-50V
C626	87-010-404-080		CAP, ELECT 4.7-50V
C627	87-012-368-080		C-CAP,S 0.1-50 F
C628	87-010-322-080		C-CAP,S 100P-50 J CH
C629	87-010-405-080		CAP, ELECT 10-50V
C630	87-010-213-080		C-CAP,S 0.015-50 B
C631	87-010-992-080		C-CAP,S 0.047-25 B
C632	87-010-263-080		CAP, ELECT 100-10V
C633	87-010-263-080		CAP, ELECT 100-10V
C634	87-012-368-080		C-CAP,S 0.1-50 F
C635	87-012-368-080		C-CAP,S 0.1-50 F
C640	87-010-314-080		C-CAP,S 22P-50 J CH
C641	87-012-368-080		C-CAP,S 0.1-50 F
C661	87-010-322-080		C-CAP,S 100P-50 J CH
C662	87-010-322-080		C-CAP,S 100P-50 J CH
C663	87-010-322-080		C-CAP,S 100P-50 J CH
C664	87-010-322-080		C-CAP,S 100P-50 J CH
C677	87-012-368-080		C-CAP,S 0.1-50 F
CN301	87-099-827-010		CONN,3P S2M-3W
CN351	87-099-832-010		CONN,8P S2M-8W
CN601	87-099-719-010		CONN,30P TYK-B(X)
CN602	87-A60-131-010		CONN,6P V FE
CN605	87-A60-189-010		CONN,16P V TUC-P16P-B1
CNA1	8Z-MA4-623-010		CONN ASSY,9P 480 VH
FB16	87-003-223-080		F-BEAD,BL02RN2
FB301	87-008-372-080		FLTR,EMIBL01RN1
FB623	87-003-223-080		F-BEAD,BL02RN2
FC602	88-906-301-110		FF-CABLE,6P-1.25
J202	87-A60-483-010		JACK,DIA6.3 BLK ST W/S KM
J203	87-033-240-010		TERMINAL,SP 4P32SV1-05
J205	87-A60-751-010		JACK,PIN 2P R/W BLUE
J603	82-MA2-631-010		JACK PIN 4P RVS
L101	87-003-383-010		COIL,1UH-S
L102	87-003-383-010		COIL,1UH-S
L201	87-003-383-010		COIL,1UH-S
L202	87-003-383-010		COIL,1UH-S
L301	87-A50-049-010		COIL,TRAP 85K(COI)
L302	87-A50-049-010		COIL,TRAP 85K(COI)
L351	87-007-342-010		COIL,OSC 85K BIAS
R129	87-A00-257-080		RES,M/F 0.15-1W J
R130	87-A00-257-080		RES,M/F 0.15-1W J
R131	87-A00-257-080		RES,M/F 0.15-1W J
R132	87-A00-257-080		RES,M/F 0.15-1W J
R143	87-A00-440-050		RES,220-1/2W J RP
R144	87-A00-440-050		RES,220-1/2W J RP
R145	87-A00-440-050		RES,220-1/2W J RP
R146	87-A00-440-050		RES,220-1/2W J RP
R165	87-A00-257-080		RES,M/F 0.15-1W J
R166	87-A00-257-080		RES,M/F 0.15-1W J
R231	87-A00-258-080		RES,M/F 0.22-1W J
R232	87-A00-258-080		RES,M/F 0.22-1W J
R233	87-A00-258-080		RES,M/F 0.22-1W J
R234	87-A00-258-080		RES,M/F 0.22-1W J
R265	87-A00-258-080		RES,M/F 0.22-1W J
R266	87-A00-258-080		RES,M/F 0.22-1W J
SFR351	87-024-356-080		SFR,47K DIA6 H
SFR352	87-024-356-080		SFR,47K DIA6 H
TH101	87-A91-042-080		C-THMS,100K 55001
TH102	87-A91-042-080		C-THMS,100K 55001
TH201	87-A91-042-080		C-THMS,100K 55001
TH202	87-A91-042-080		C-THMS,100K 55001
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P

FRONT C.B

C101	87-010-320-080		CHIP CAP 68P
C102	87-010-320-080		CHIP CAP 68P
C103	87-010-178-080		CHIP CAP 1000P
C104	87-010-316-080		C-CAP,S 33P-50 CH
C105	87-010-196-080		CHIP CAPACITOR,0.1-25
C106	87-012-150-080		CAP 20P-50 CH
C107	87-012-157-080		C-CAP,S 330P-50 CH

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C108	87-010-405-040		CAP,E 10-50
C112	87-010-196-080		CHIP CAPACITOR,0.1-25
C113	87-A10-189-040		CAP,E 220-10
C114	87-010-196-080		CHIP CAPACITOR,0.1-25
C115	87-010-178-080		CHIP CAP 1000P
C116	87-010-493-040		CAP,E 0.47-50 GAS
C117	87-010-498-040		CAP,E 10-16 GAS
C118	87-012-369-080		C-CAP,S 0.047-50F
C119	87-010-408-040		CAP, ELECT 47-50V
C120	87-010-421-040		CAP,E 4.7-50 5L
C121	87-010-421-040		CAP,E 4.7-50 5L
C122	87-010-178-080		CHIP CAP 1000P
C123	87-010-196-080		CHIP CAPACITOR,0.1-25
C124	87-010-196-080		CHIP CAPACITOR,0.1-25
C125	87-010-196-080		CHIP CAPACITOR,0.1-25
C126	87-010-194-080		CAP, CHIP 0.047
C127	87-010-190-080		C-CAP,S 0.01-50 ZF
C128	87-010-178-080		CHIP CAP 1000P
C129	87-010-248-080		CAP,E 220-10
C130	87-010-194-080		CAP, CHIP 0.047
C131	87-010-079-040		CAP,E 100-6.3 5L
C180	87-012-157-080		C-CAP,S 330P-50 CH
C201	87-010-196-080		CHIP CAPACITOR,0.1-25
C202	87-010-196-080		CHIP CAPACITOR,0.1-25
C203	87-010-314-080		C-CAP,S 22P-50 J CH
C281	87-010-198-080		CAP, CHIP 0.022
C282	87-010-198-080		CAP, CHIP 0.022
C381	87-010-196-080		CHIP CAPACITOR,0.1-25
C382	87-012-158-080		C-CAP,S 390P-50 CH
C383	87-010-196-080		CHIP CAPACITOR,0.1-25
C384	87-010-196-080		CHIP CAPACITOR,0.1-25
C385	87-010-196-080		CHIP CAPACITOR,0.1-25
C386	87-010-196-080		CHIP CAPACITOR,0.1-25
C387	87-010-196-080		CHIP CAPACITOR,0.1-25
C832	87-018-131-080		CAP,TC-U 1000P-50
C938	87-012-145-080		CAP, CHIP S 270P CH
C941	87-012-145-080		CAP, CHIP S 270P CH
C942	87-012-145-080		CAP, CHIP S 270P CH
C943	87-012-145-080		CAP, CHIP S 270P CH
C944	87-012-145-080		CAP, CHIP S 270P CH
C945	87-012-145-080		CAP, CHIP S 270P CH
C946	87-012-145-080		CAP, CHIP S 270P CH
C947	87-012-145-080		CAP, CHIP S 270P CH
C948	87-012-145-080		CAP, CHIP S 270P CH
C949	87-012-145-080		CAP, CHIP S 270P CH
C950	87-012-145-080		CAP, CHIP S 270P CH
C951	87-012-145-080		CAP, CHIP S 270P CH
C952	87-012-145-080		CAP, CHIP S 270P CH
CN101	87-099-720-010		CONN,30P TYK-B(P)
CN102	87-A60-162-010		CONN,14P H FE
FC102	88-914-231-110		FF-CABLE 14P 1.25
FL101	8Z-MA4-604-010		FL,BJ675GK
L101	87-A50-408-010		COIL,OSC 5.76MHZ
LED101	87-A40-317-080		LED,SLR-342VCT31 RED
LED201	87-A91-052-080		LED,SEL6227S RED
LED202	87-A91-052-080		LED,SEL6227S RED
LED203	87-A91-052-080		LED,SEL6227S RED
LED204	87-A91-052-080		LED,SEL6227S RED
LED205	87-A91-052-080		LED,SEL6227S RED
LED216	87-017-350-080		LED,SEL1550CM
LED217	87-017-350-080		LED,SEL1550CM
LED218	87-017-350-080		LED,SEL1550CM
LED219	87-017-350-080		LED,SEL1550CM
LED220	87-017-350-080		LED,SEL1550CM
LED221	87-017-350-080		LED,SEL1550CM
LED222	87-017-350-080		LED,SEL1550CM
LED223	87-017-350-080		LED,SEL1550CM
LED224	87-017-350-080		LED,SEL1550CM
LED225	87-017-350-080		LED,SEL1550CM
LED226	87-017-350-080		LED,SEL1550CM
LED227	87-017-350-080		LED,SEL1550CM
LED228	87-A40-619-080		LED,SLR-56PT-TE7-W GRN
LED229	87-A40-619-080		LED,SLR-56PT-TE7-W GRN
LED230	87-A40-619-080		LED,SLR-56PT-TE7-W GRN
LED231	87-A40-619-080		LED,SLR-56PT-TE7-W GRN
LED232	87-A40-619-080		LED,SLR-56PT-TE7-W GRN
LED241	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED242	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED243	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED244	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED245	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED246	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED247	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED248	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED249	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED250	87-A40-380-080		LED,SEL6510C-TP5 GRN
R301	87-022-355-080		C-RES,S10K-1/10W F
R321	87-022-355-080		C-RES,S10K-1/10W F
S101	87-A90-535-010		SW,RTRY EC16B24304
S102	8Z-MA4-612-010		SW,RTRY REO 121SL10-12
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S310	87-A90-095-080		SW,TACT EVQ11G04M
S311	87-A90-095-080		SW,TACT EVQ11G04M
S321	87-A90-095-080		SW,TACT EVQ11G04M
S322	87-A90-095-080		SW,TACT EVQ11G04M
S323	87-A90-095-080		SW,TACT EVQ11G04M
S324	87-A90-095-080		SW,TACT EVQ11G04M
S325	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M
S328	87-A90-095-080		SW,TACT EVQ11G04M
S329	87-A90-095-080		SW,TACT EVQ11G04M
S330	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M
S332	87-A90-095-080		SW,TACT EVQ11G04M
S333	87-A90-095-080		SW,TACT EVQ11G04M
S334	87-A90-095-080		SW,TACT EVQ11G04M
S335	87-A90-095-080		SW,TACT EVQ11G04M
S336	87-A90-095-080		SW,TACT EVQ11G04M
S337	87-A90-095-080		SW,TACT EVQ11G04M
S338	87-A90-095-080		SW,TACT EVQ11G04M
SFR101	87-024-350-080		SFR 2.2K DIA 6H
TUNER C.B			
C701	87-010-381-080		CAP,ELECT 330-16V
C702	87-010-404-080		CAP,ELECT 4.7-50V
C703	87-012-286-080		CAP,U 0.01-25
C704	87-012-286-080		CAP,U 0.01-25
C709	87-012-195-080		C-CAP,U 100P-50CH
C711	87-010-260-080		CAP,ELECT 47-25V
C712	87-010-831-080		C-CAP,U,0.1-16F
C713	87-012-286-080		CAP,U 0.01-25
C714	87-012-286-080		CAP,U 0.01-25
C715	87-012-195-080		C-CAP,U 100P-50CH
C717	87-012-286-080		CAP,U 0.01-25
C719	87-012-286-080		CAP,U 0.01-25
C720	87-012-195-080		C-CAP,U 100P-50CH
C721	87-012-176-080		CAP,15P
C722	87-012-176-080		CAP,15P
C723	87-012-274-080		CHIP CAP,U 1000P-50B
C725	87-018-131-080		CAP,TC U 1000P-50 KB
C727	87-010-196-080		CHIP CAPACITOR,0.1-25

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C728	87-010-248-080		CAP,ELECT 220-10V
C729	87-012-274-080		CHIP CAP,U 1000P-50B
C731	87-012-286-080		CAP,U 0.01-25
C733	87-012-280-080		C-CAP,U 3300P-50 KB
C734	87-012-280-080		C-CAP,U 3300P-50 KB
C752	87-012-282-080		C-CAP,U 4700P-50 KB
C753	87-012-195-080		C-CAP,U 100P-50 J CH
C755	87-012-286-080		CAP,U 0.01-25
C756	87-012-286-080		CAP,U 0.01-25
C757	87-012-188-080		C-CAP,U 47P-50 CH
C758	87-012-167-080		C-CAP,U 5P-50 CH
C761	87-010-196-080		C-CAP,S 0.1-25 ZF
C762	87-012-286-080		CAP,U 0.01-25
C763	87-010-829-080		CAP,U 0.047-16
C765	87-012-286-080		CAP,U 0.01-25
C766	87-010-197-080		C-CAP,S 0.01-25 KB
C768	87-012-286-080		CAP,U 0.01-25
C769	87-010-260-080		CAP,ELECT 47-25V
C770	87-010-829-080		CAP,U 0.047-16
C771	87-010-383-080		CAP,ELECT 33-25V
C772	87-010-829-080		CAP,U 0.047-16
C773	87-010-196-080		CHIP CAPACITOR,0.1-25
C774	87-010-263-080		CAP,ELECT 100-10V
C775	87-010-404-080		CAP,ELECT 4.7-50V
C776	87-012-286-080		CAP,U 0.01-25
C777	87-010-493-080		CAP,E 0.47-50 M 5L SRE
C778	87-010-401-080		CAP,ELECT 1-50V
C779	87-010-401-080		CAP,ELECT 1-50V
C780	87-010-196-080		CHIP CAPACITOR,0.1-25
C781	87-010-405-080		CAP,ELECT 10-50V
C782	87-010-405-080		CAP,ELECT 10-50V
C783	87-012-286-080		CAP,U 0.01-25
C784	87-012-286-080		CAP,U 0.01-25
C785	87-010-401-080		CAP,ELECT 1-50V
C786	87-010-401-080		CAP,ELECT 1-50V
C787	87-012-275-080		C-CAP,U 1200P-50 B
C788	87-012-275-080		C-CAP,U 1200P-50 B
C789	87-012-275-080		C-CAP,U 1200P-50 B
C790	87-012-275-080		C-CAP,U 1200P-50 B
C791	87-010-405-080		CAP,ELECT 10-50V
C793	87-012-273-080		C-CAP,U 820P-50 B
C794	87-010-406-080		CAP,ELECT 22-50
C795	87-010-596-080		CAP,S 0.047-16
C796	87-010-403-080		CAP,ELECT 3.3-50V
C797	87-012-276-080		C-CAP,U 1500P-50 KB
C798	87-012-276-080		C-CAP,U 1500P-50 KB
C799	87-010-829-080		CAP,U 0.047-16
C812	87-012-286-080		CAP,U 0.01-25
C814	87-012-286-080		CAP,U 0.01-25
C820	87-010-260-080		CAP,ELECT 47-25V
C821	87-012-286-080		CAP,U 0.01-25
C822	87-012-286-080		CAP,U 0.01-25
C823	87-012-286-080		CAP,U 0.01-25
C828	87-010-196-080		CHIP CAPACITOR,0.1-25
C829	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-012-286-080		C-CAP,U 0.01-25 KB
C861	87-012-199-080		C-CAP,U 220P-50 J CH
C862	87-012-199-080		C-CAP,U 220P-50 J CH
C863	87-012-270-080		C-CAP,U 470P-50 KB
C864	87-010-405-080		CAP,E 10-50 M 11L SME
C865	87-010-196-080		C-CAP,S 0.1-25 ZF
C866	87-010-405-080		CAP,E 10-50 M 11L SME
C867	87-012-286-080		C-CAP,U 0.01-25 KB
C868	87-012-184-080		C-CAP,U 33P-50 J CH
C869	87-012-180-080		C-CAP,U 22P-50 J CH
C940	87-012-286-080		C-CAP,U 0.01-25 KB
C942	87-012-172-080		C-CAP,U 10P-50 D CH
C947	87-012-286-080		C-CAP,U 0.01-25 KB
C949	87-A10-039-080		C-CAP,U 470P-50 J CH
C952	87-012-286-080		C-CAP,U 0.01-25 KB

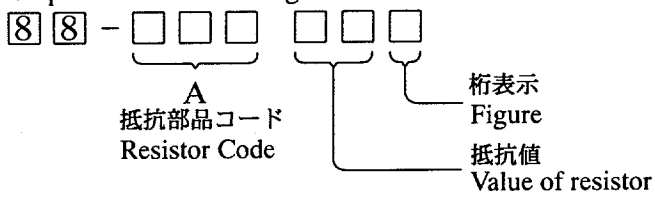
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C958	87-010-197-080		C-CAP,S 0.01-25 KB
C959	87-010-831-080		C-CAP,U 0.1-16 ZF
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C962	87-010-401-080		CAP,E 1-50 M 11L SME
CF801	87-008-423-010		FLTR,CF SFE10.7MS3G-A
CF802	82-785-747-010		CF,MS2 GHY R
CN701	87-A60-650-010		CONN,16P H GRY TUC-P16X-C1
FFE801	A8-6ZA-191-130		6ZA-1 FEENM
J801	87-033-241-010		TERMINAL,ANT 2P AJ-2039
L771	87-A50-266-010		COIL,FM DET-2N(TOK)
L772	87-A90-733-010		FLTR,PCFAZH-450(TOK)
L781	87-005-847-010		COIL,2.2UH K CECS
L791	87-A50-027-010		COIL,1 POLE MPX(TOK)
L792	87-A50-027-010		COIL,1 POLE MPX(TOK)
L832	87-005-847-080		COIL,2.2UH K CECS
L851	87-005-847-080		COIL,2.2UH K CECS
L941	87-A50-020-010		COIL,ANT LW(COI)252KHZ
L942	87-A50-019-010		COIL,OSC LW(COI) 856KHZ
L981	87-NF4-651-110		COIL,AM PACK 2N(TOM)
TC942	87-011-164-010		TRIMMER,CER 30P 4.5X3.9 VCT31
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
X851	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309

PT C.B

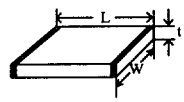
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C1	87-A10-831-080		CAP,E 1000-25 M SME
C3	87-018-209-080		CAP,TC-U 0.1-50 ZF
C4	87-018-209-080		CAP,TC-U 0.1-50 ZF
C5	87-018-209-080		CAP,TC-U 0.1-50 ZF
C6	87-018-209-080		CAP,TC-U 0.1-50 ZF
⚠ C7	87-A10-479-080		CAP,CER 2200P-250 M E K H
C8	87-A10-520-090		CAP,E 3300-35 M SMG
C9	87-A10-520-090		CAP,E 3300-35 M SMG
C20	87-010-403-080		CAP,E 3.3-50 M 11L SME
CN1	87-A60-851-010		CONN,9P V VH
⚠ PT101	8Z-MA4-611-010		PT,ZMA-4 K
⚠ PT2	8Z-NF8-662-010		PT,SUB ZNF-8(E)
⚠ RY2	87-A90-976-010		RELAY,AC12V SDT-S-112LMR
⚠ T1	87-A60-317-010		TERMINAL, 1P MSC
⚠ T2	87-A60-317-010		TERMINAL, 1P MS

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION

E C B

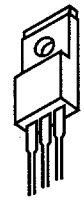
KTA1266GR
KTC3198GR
KTC3199GR

E C B

CC5551

E C B

2SA1296
CSC4115BC

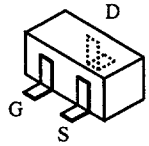


B C E

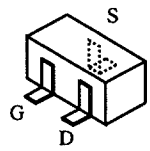
2SB1370
FN1016
FP1016
2SB1626
2SB2495

E C B

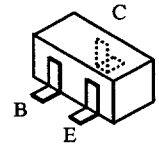
DTC114ES
2SC4115



2SK2158



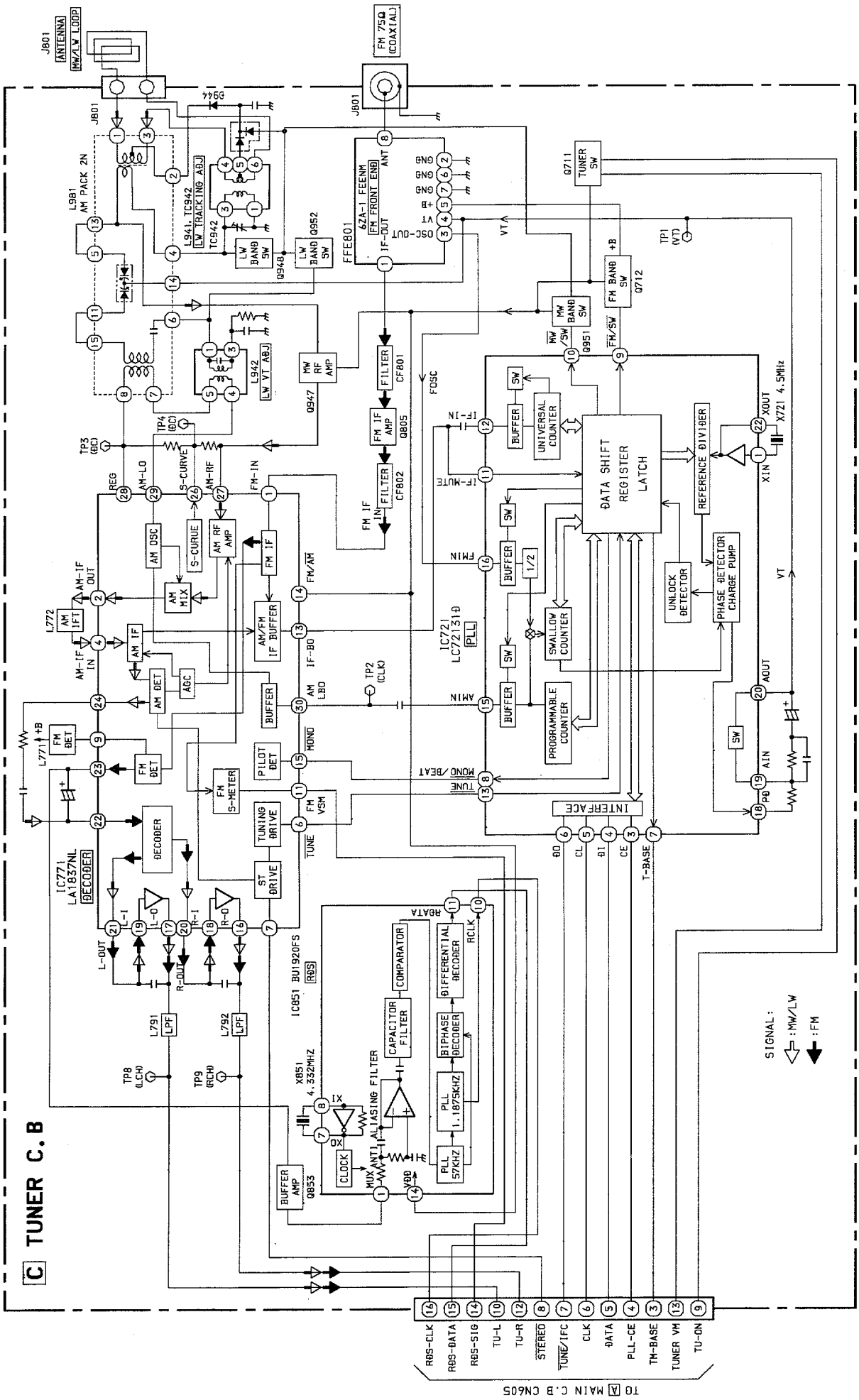
2SK543



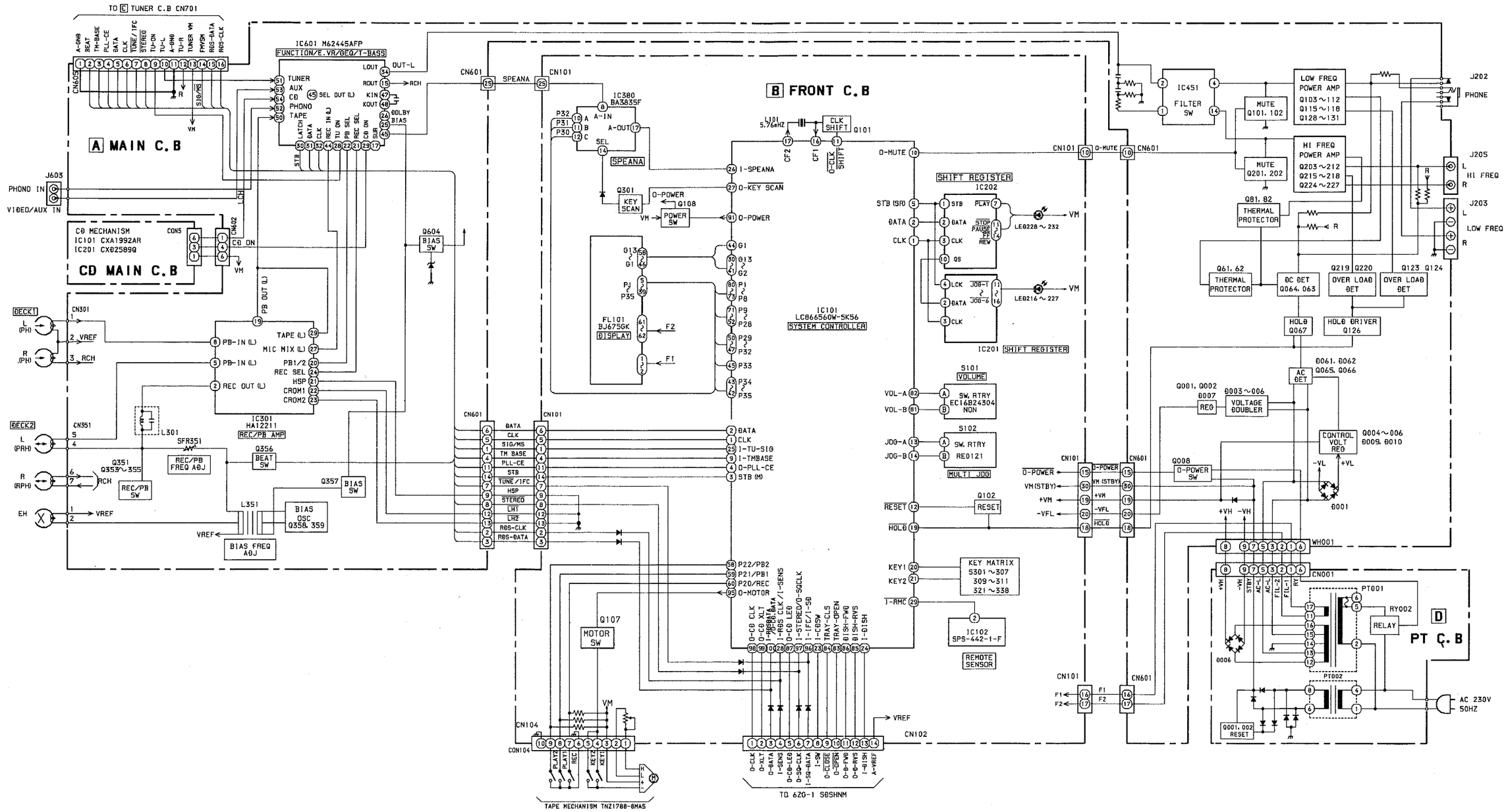
2SA1235F
2SC2714
2SC3052F
2SC3906KR
CMBT5401
DTA123JK

RT1N141C
RT1P144C
RT1P441C
CSD1306E
DTA123EKA
RT1P141C

BLOCK DIAGRAM – 1 (TUNER)

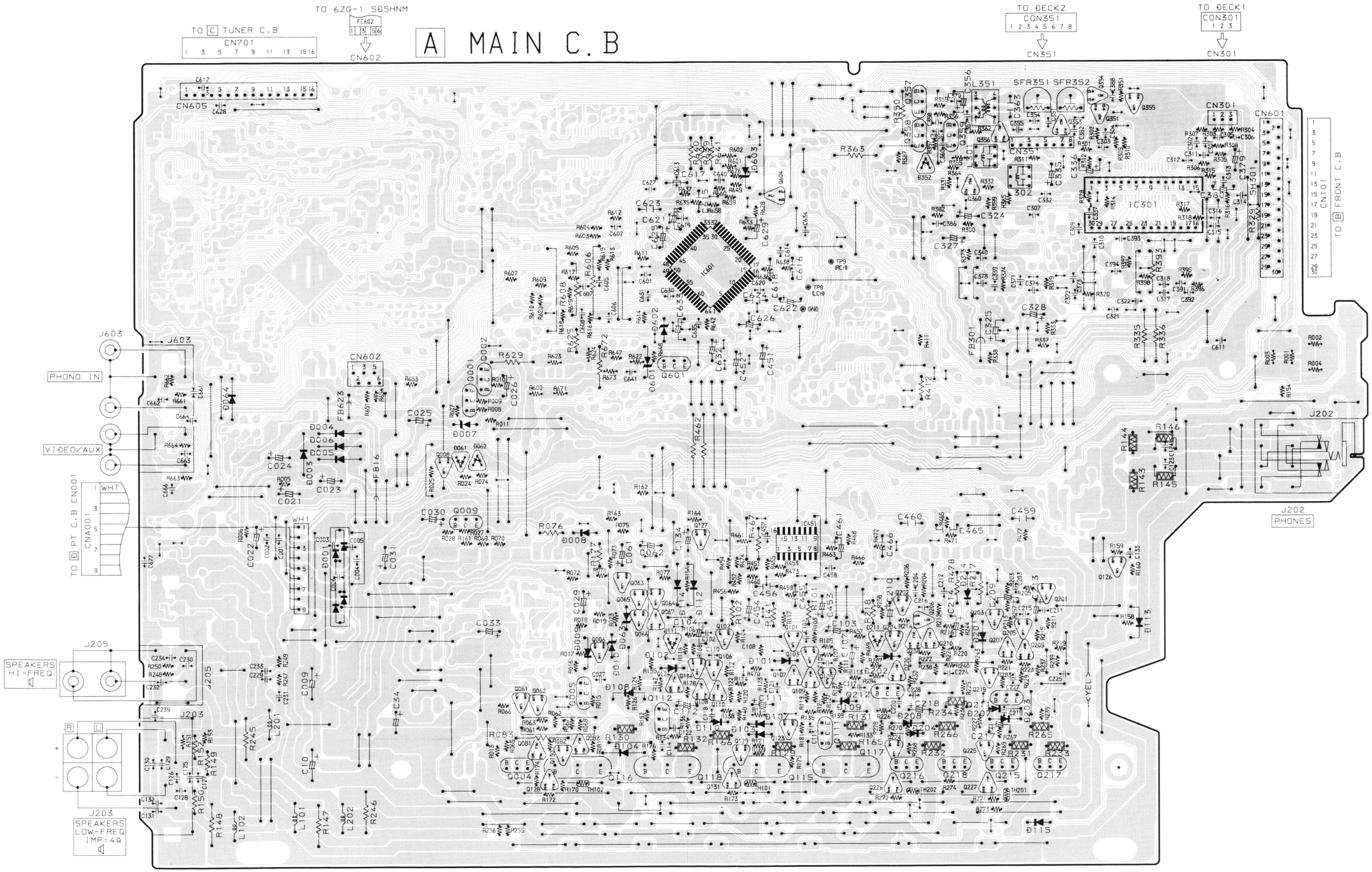


BLOCK DIAGRAM – 2 (MAIN / FRONT)

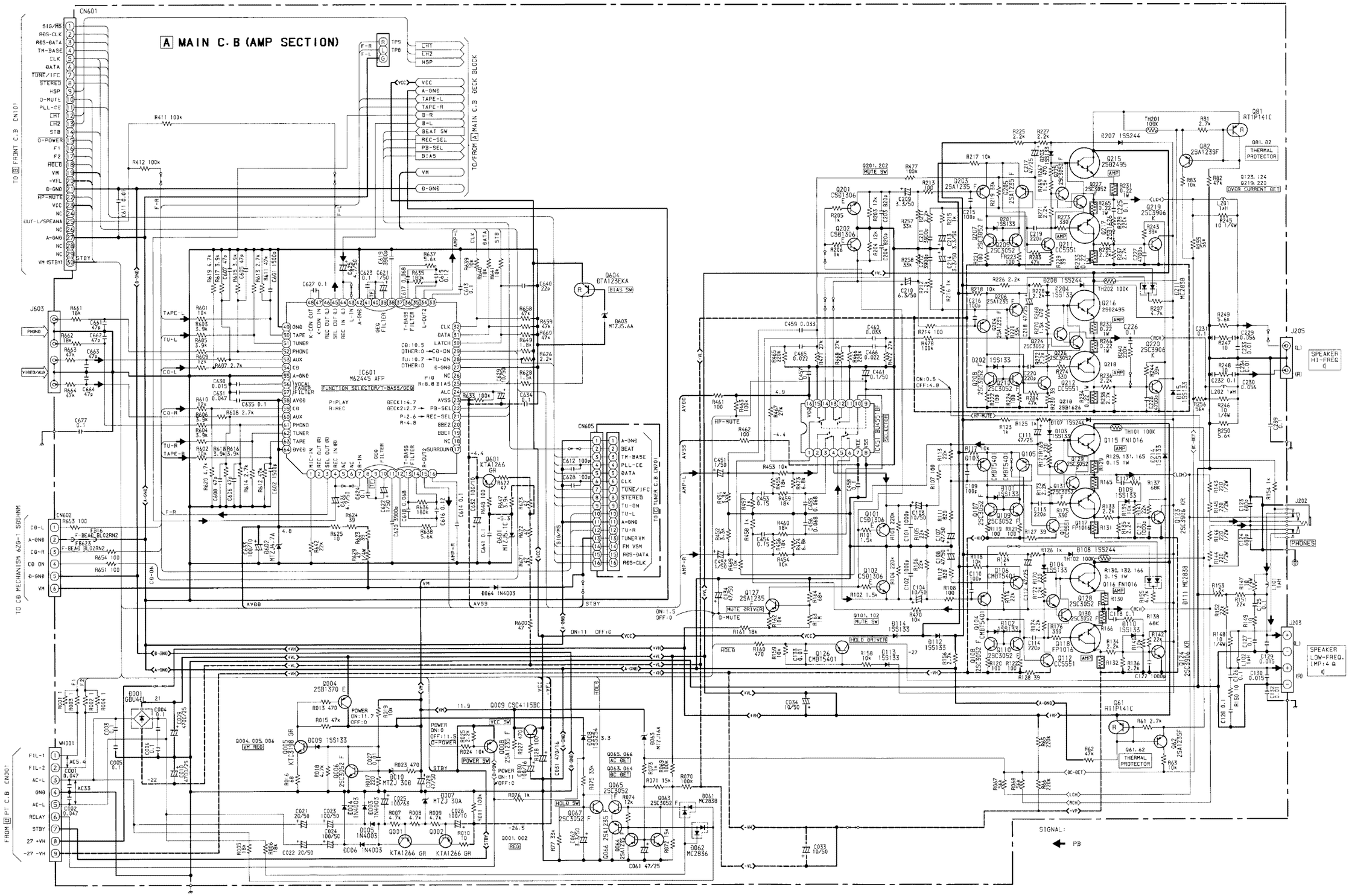


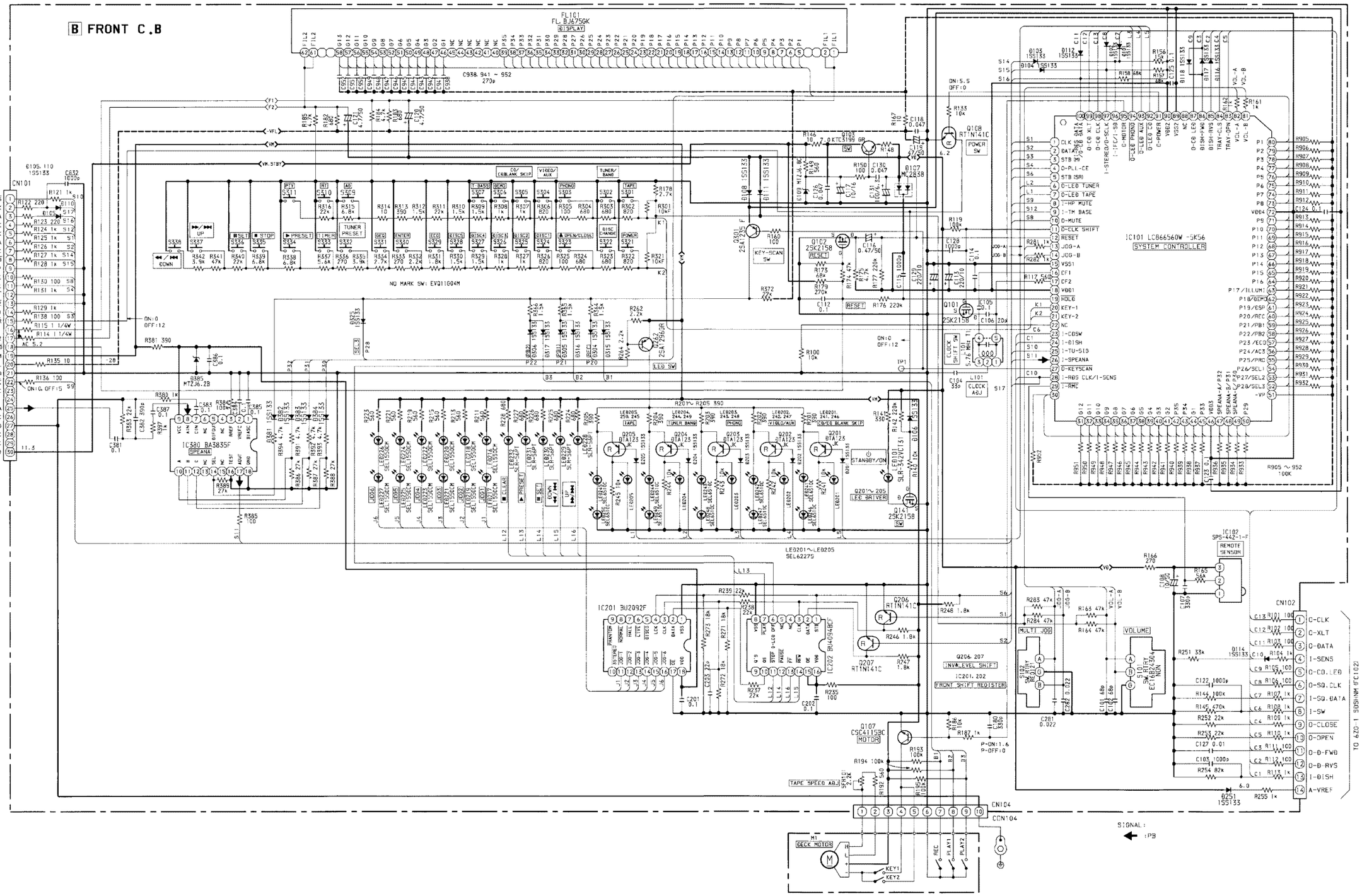
1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F G H I J



SCHEMATIC DIAGRAM – 1 (MAIN 1 / 2 : AMP)

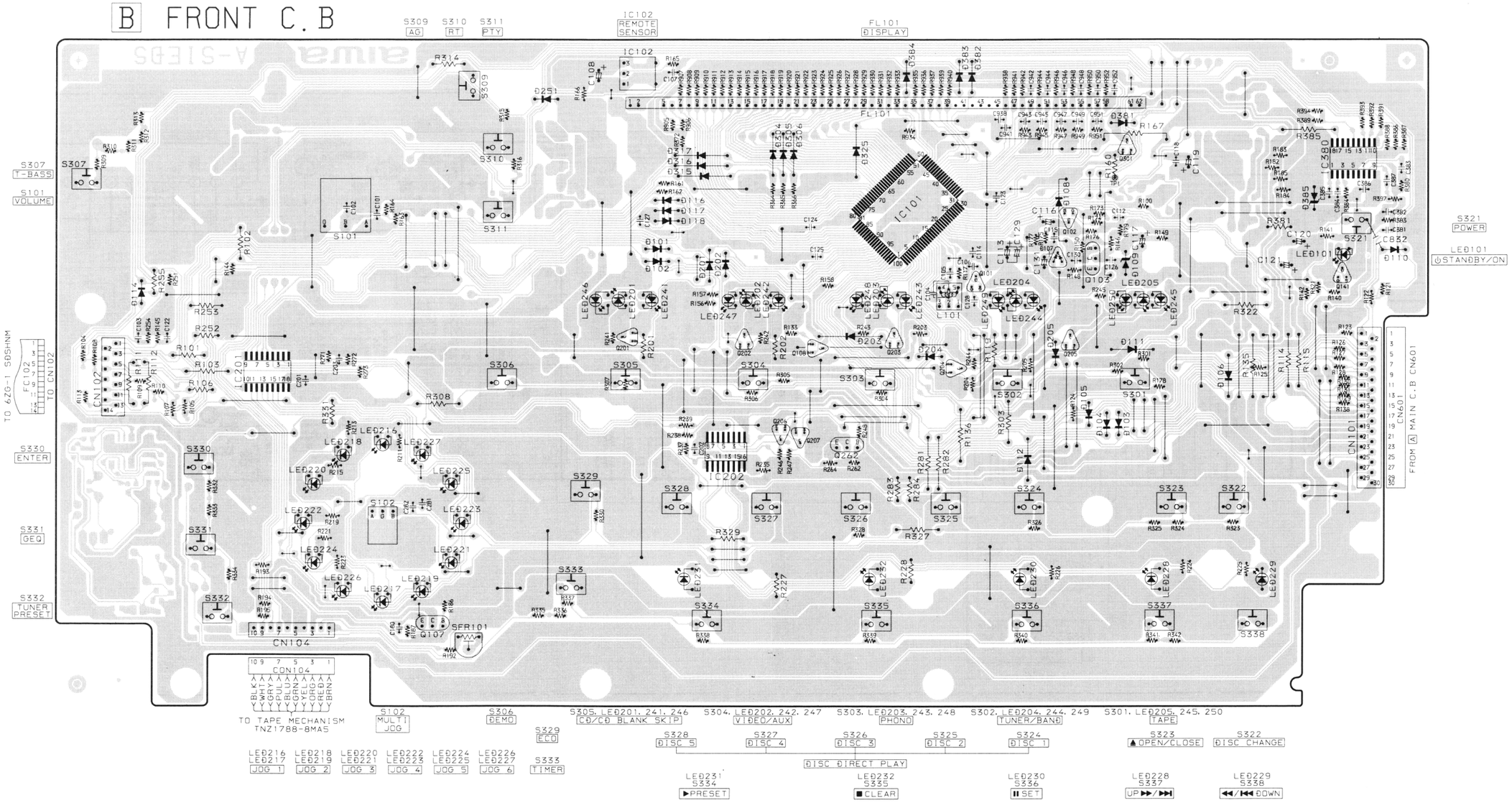



B FRONT C.B
FL101
FL BJ675GK
DISPLAY
C938, 941 ~ 952
270p
CN101
FROM A MAIN C.B CN401
TU-SIG/MS
RDS-CLK
RDS-DATA
TM-BASE
CLK
DATA
TUNE/IFC
STEREO
HSP
D-MUTE
PLL-CE
LH1
LH2
STB (M)
D-POWER
F1
F2
HOLD
VM
-VFL
0-GND
HP-MUTE
VCC
VCC (NC)
IN-L/SPEANA
NC
A-GND
NC
NC
VM (STBY)
IC101 LC866560W -5K56
SYSTEM CONTROLLER
IC380 BA3835F
SPEANA
IC201 BU2092F
IC202 BU4094BCF
Q107 2SK2158
Q108 RT1N141C
POWER SW
Q401 2SA1235 F
KEY-SCAN SW
Q201~205 DTA123
LED201~LED205 SEL62275
Q206 207 INV&LEVEL SHIFT
IC201, 202 FRONT SHIFT REGISTER
Q207 RT1N141C
Q107 C9C4115BC
MOTOR
TAPE SPEED ADJ
CN104
M1
DECK MOTOR
KEY1
KEY2
REC
PLAY1
PLAY2
IC102 SPS-442-1-F
REMOTE SENSOR
CN102
MULTI JOG
VOLUME
SIGNAL : FB
TO CD13 (MAIN) C-027 01

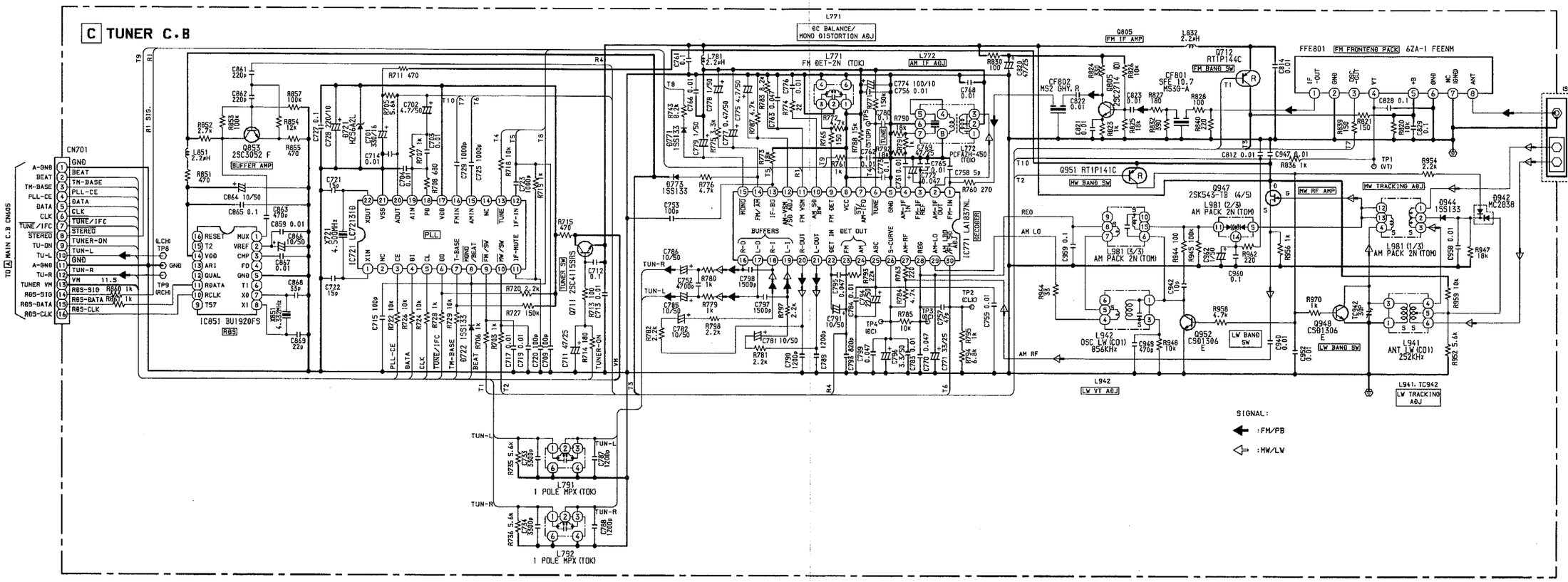
1 2 3 4 5 6 7 8 9 10 11 12 13 14

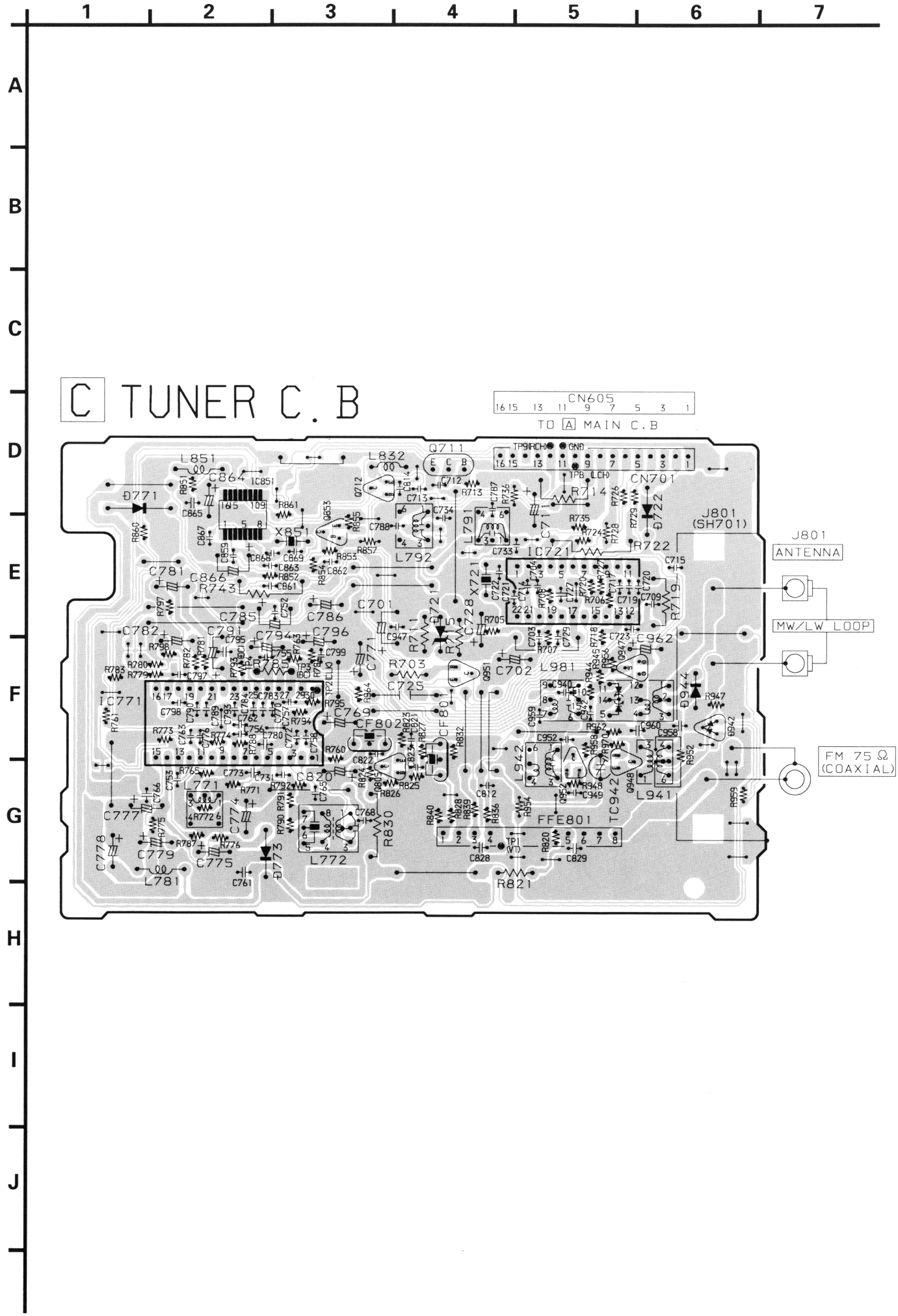
A B C D E F G H I J

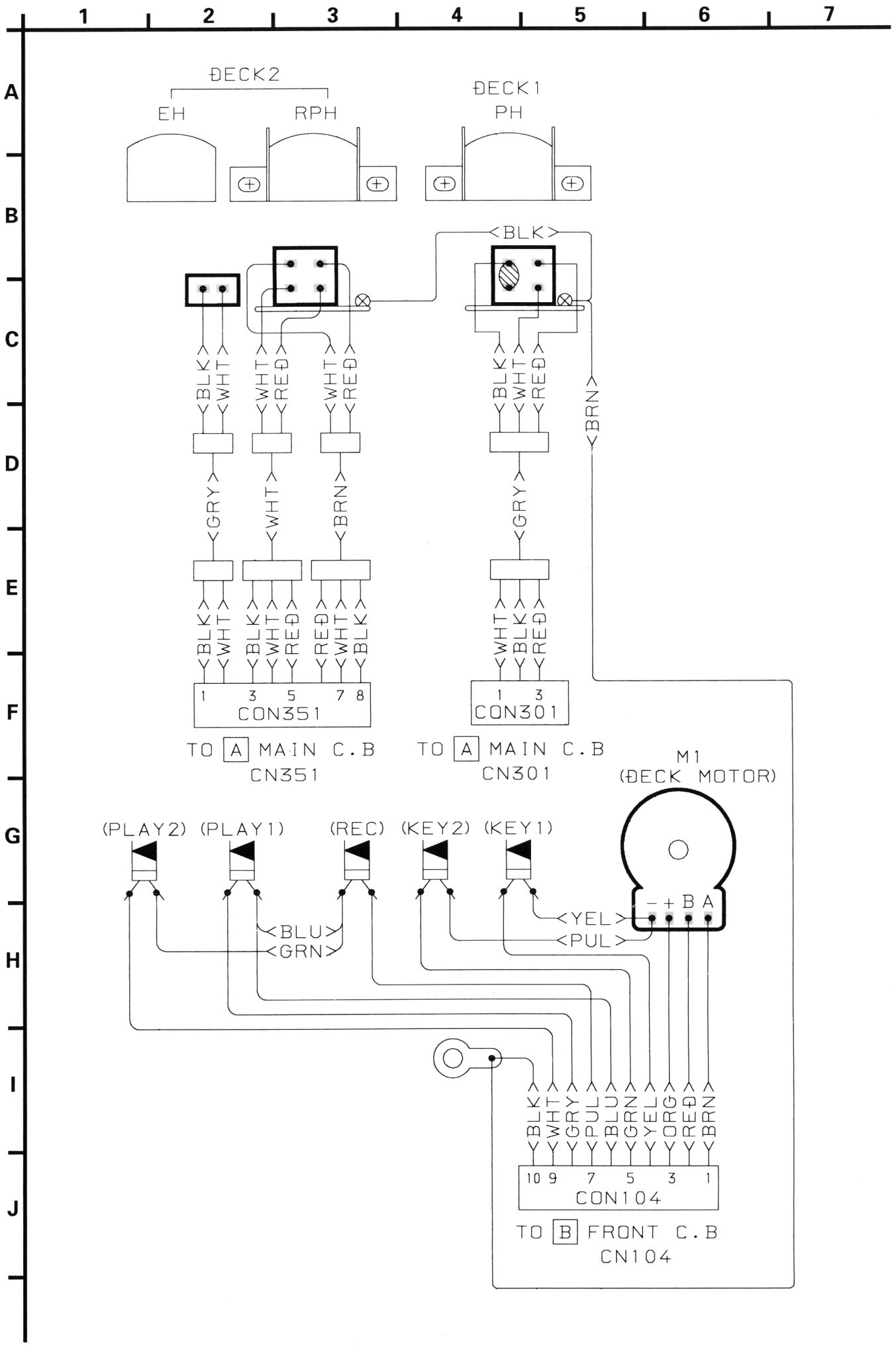
B FRONT C.B

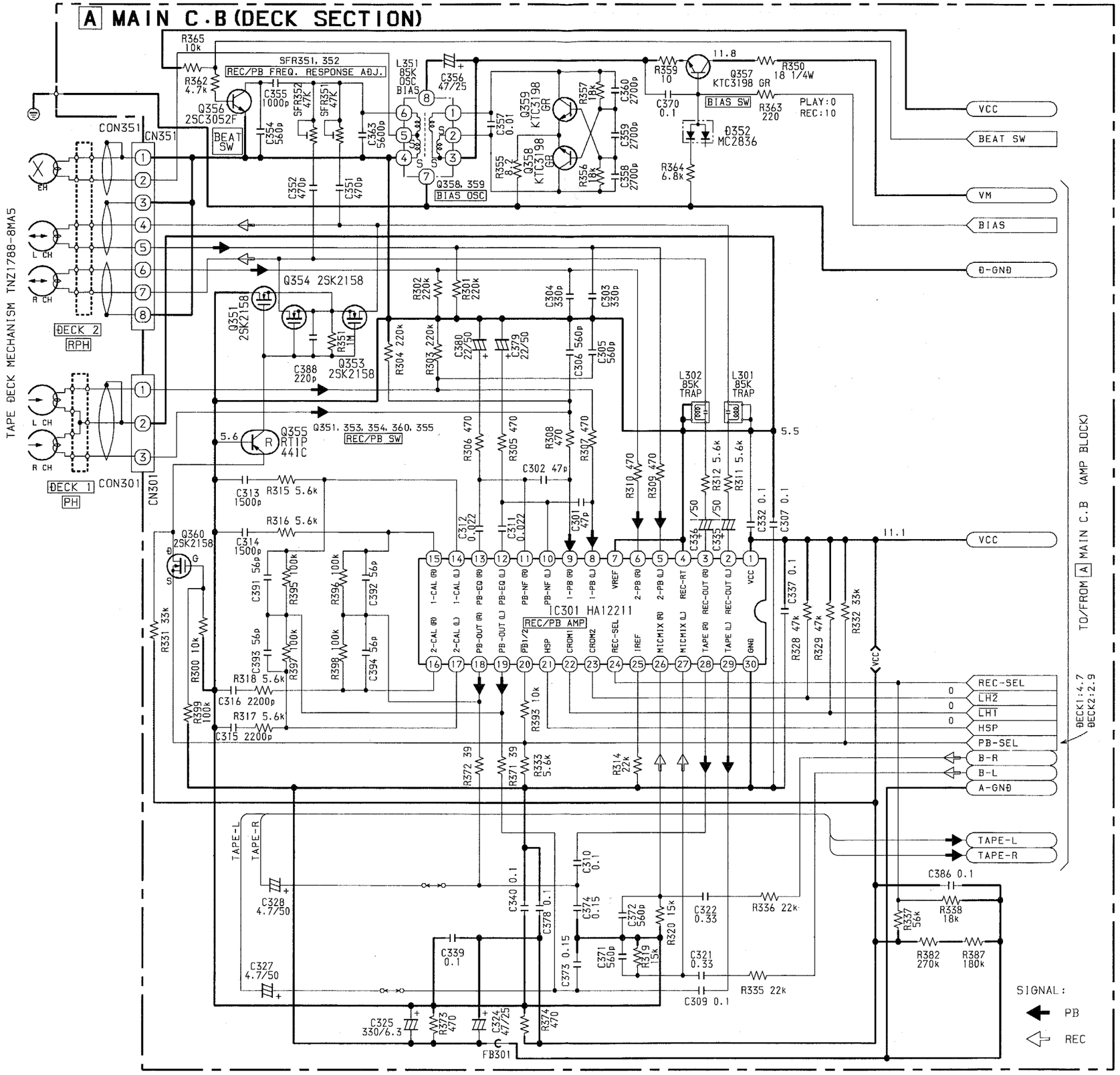


SCHEMATIC DIAGRAM – 3 (TUNER)

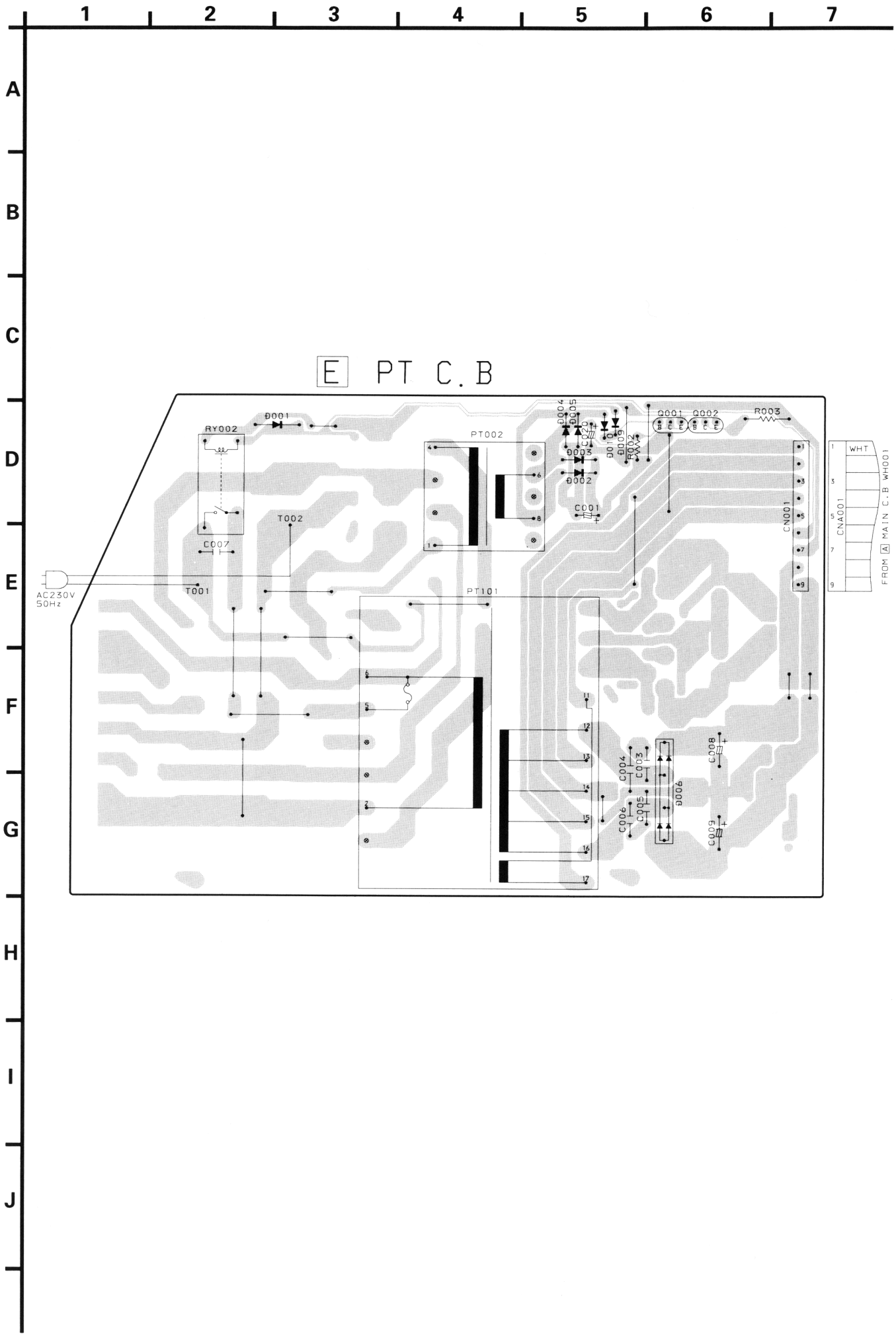



1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
C TUNER C. B
CN605
16 15 13 11 9 7 5 3 1
TO A MAIN C.B
J801
(SH701)
J801
ANTENNA
MW/LW LOOP
FM 75 Ω
(COAXIAL)
TP9RCH
GND
TP8LCH
CN701
IC851
IC771
IC721
X851
X721
Q711
L851
L832
L791
L792
L772
L771
L781
L941
L942
L981
TC942
FFE801
D771
D773
D722
D944
CF801
CF802
R722
R821
R830

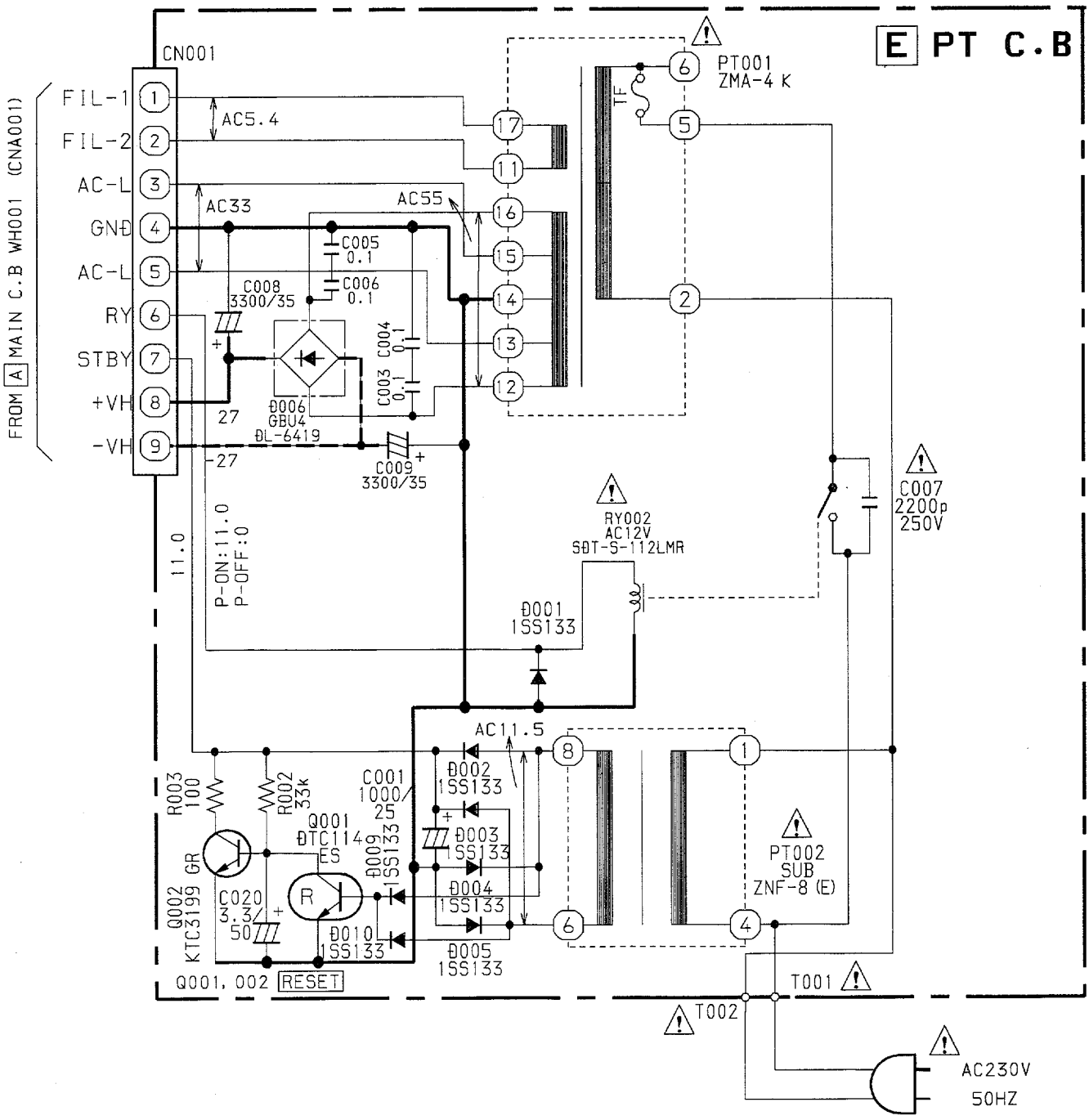

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
DECK2
EH
RPH
DECK1
PH
BLK
BLK
WHT
WHT
RED
WHT
RED
BRN
GRY
WHT
BRN
GRY
BLK
WHT
RED
WHT
BLK
RED
WHT
BLK
RED
1 3 5 7 8
CON351
1 3
CON301
TO A MAIN C.B
CN351
TO A MAIN C.B
CN301
M1
(DECK MOTOR)
(PLAY2)
(PLAY1)
(REC)
(KEY2)
(KEY1)
BLU
GRN
YEL
PUL
– + B A
BLK
WHT
GRY
PUL
BLU
BRN
GRN
YEL
ORG
RED
BRN
10 9 7 5 3 1
CON104
TO B FRONT C.B
CN104


A MAIN C.B (DECK SECTION)
TAPE DECK MECHANISM TNZ1788-8MA5
CON351
CN351
DECK 2
RPH
DECK 1
PH
CON301
CN301
Q354 2SK2158
Q351 2SK2158
Q353 2SK2158
Q355 RT1P 441C
Q351, 353, 354, 360, 355
REC/PB SW
Q360 2SK2158
Q356 2SC3052F
BEAT SW
SFR351, 352
REC/PB FREQ. RESPONSE ADJ.
Q358, 359
BIAS OSC
Q357 KTC3198 GR
BIAS SW
PLAY:0
REC:10
Q352 MC2836
L351 85K OSC BIAS
L302 85K TRAP
L301 85K TRAP
IC301 HA12211
REC/PB AMP
FB301
VCC
BEAT SW
VM
BIAS
Θ-GNΘ
REC-SEL
LH2
LH1
HSP
PB-SEL
B-R
B-L
A-GNΘ
TAPE-L
TAPE-R
TO/FROM A MAIN C.B (AMP BLOCK)
ΘECK1:4.7
ΘECK2:2.9
SIGNAL:
PB
REC

WIRING – 5 (PT)

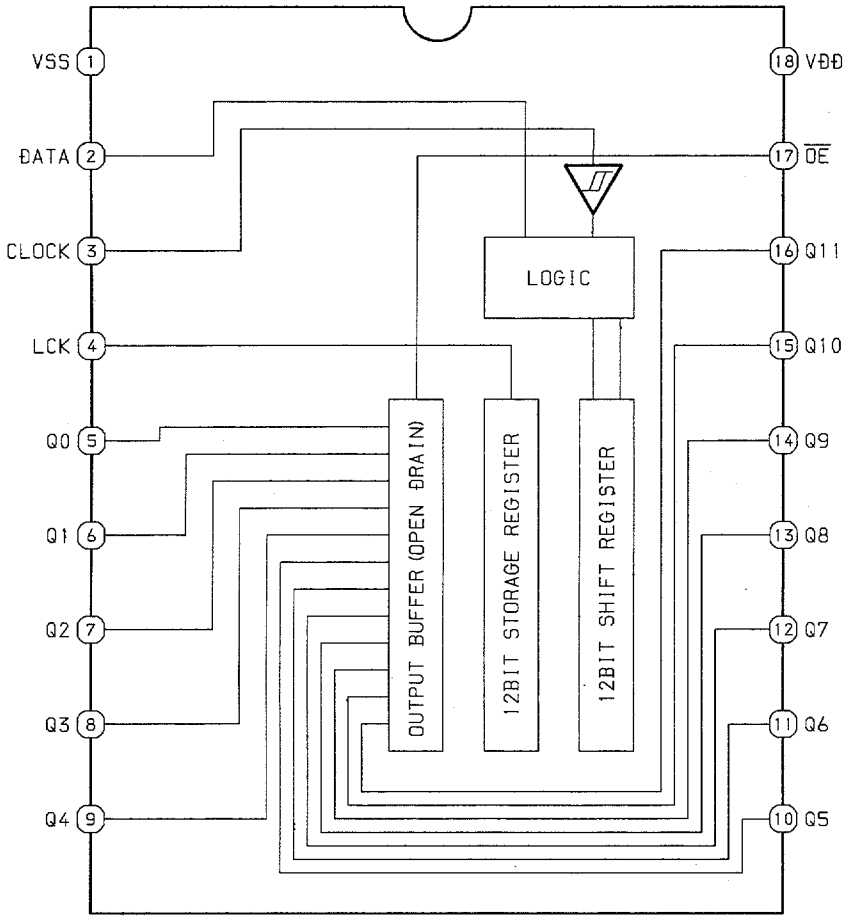

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
E PT C.B
D001
RY002
T002
C007
T001
AC230V
50Hz
PT002
PT101
D004
D005
C002
D010
D009
R002
D003
D002
C001
Q001
Q002
R003
CN001
CNA001
WHT
FROM A MAIN C.B WH001
C004
C003
C005
C006
D006
C008
C009

SCHEMATIC DIAGRAM – 5 (PT)

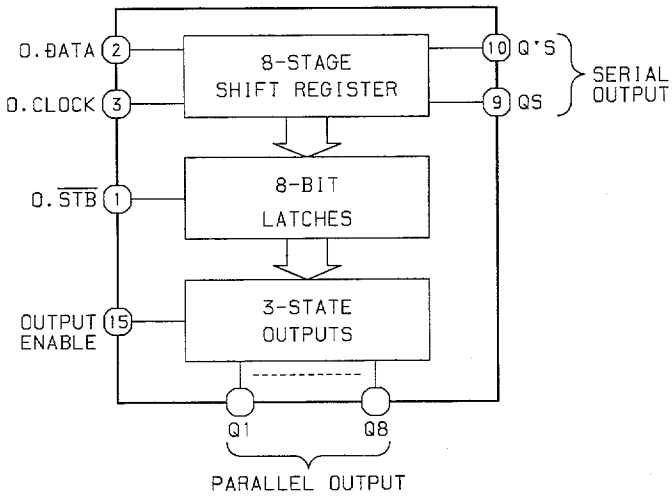


IC BLOCK DIAGRAM

IC, BU2092F



IC, BU4094BCF

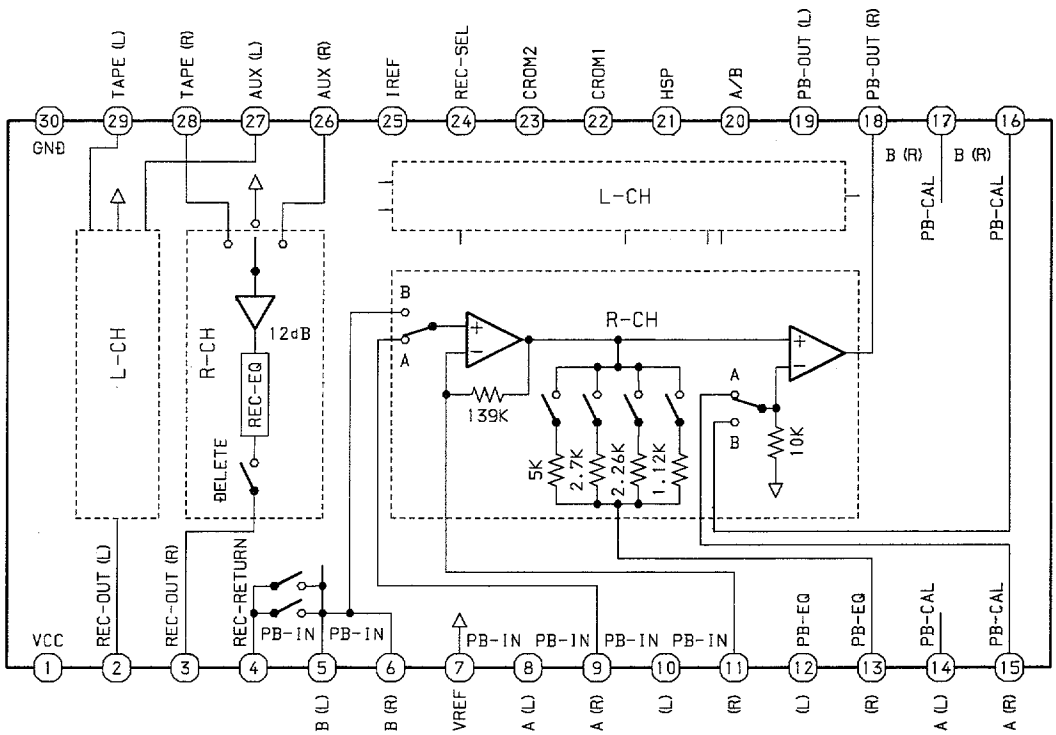


TRUTH TABLE

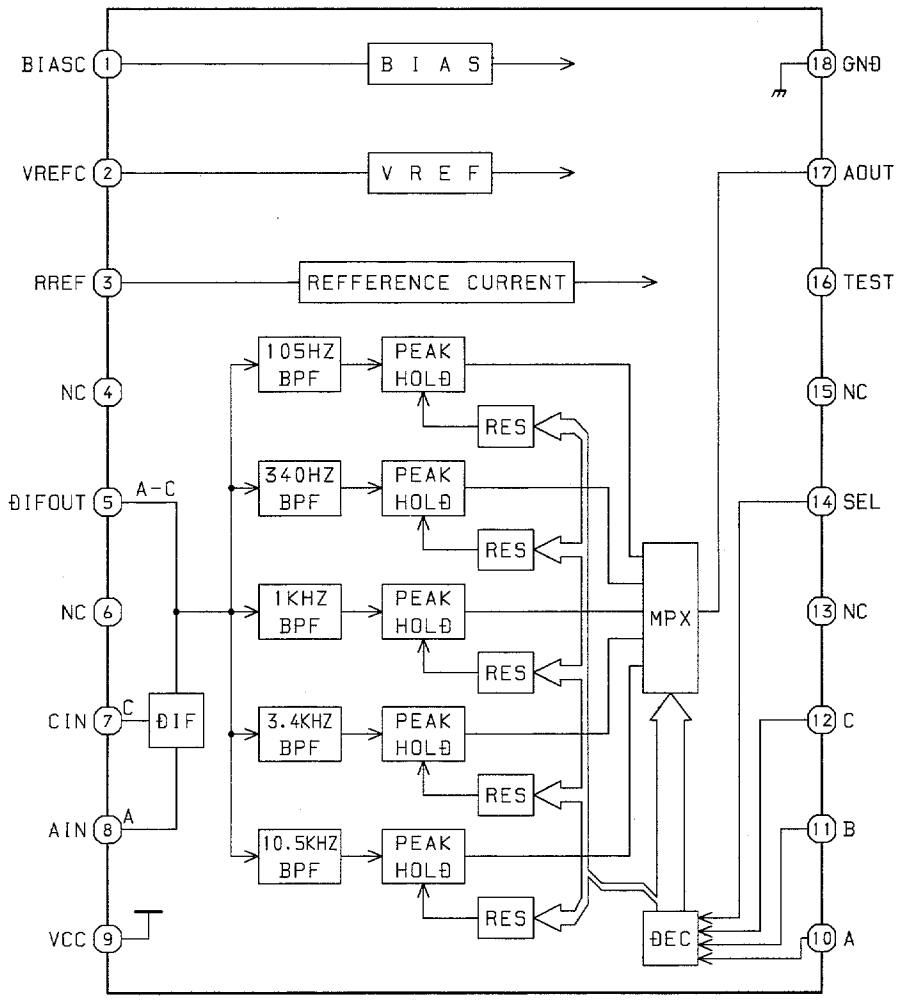
CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	QS	Q'S
↓	L	X	X	Z	Z	Q7	NO CHG.
↑	L	X	X	Z	Z	NO CHG.	QS
↓	H	L	X	NO CHG.	NO CHG.	Q7	NO CHG.
↓	H	H	L	L	Qn-1	Q7	NO CHG.
↓	H	H	H	H	Qn-1	Q7	NO CHG.
↑	H	X	X	NO CHG.	NO CHG.	NO CHG.	QS

Z = HIGH IMPEDANCE
X = DON'T CARE

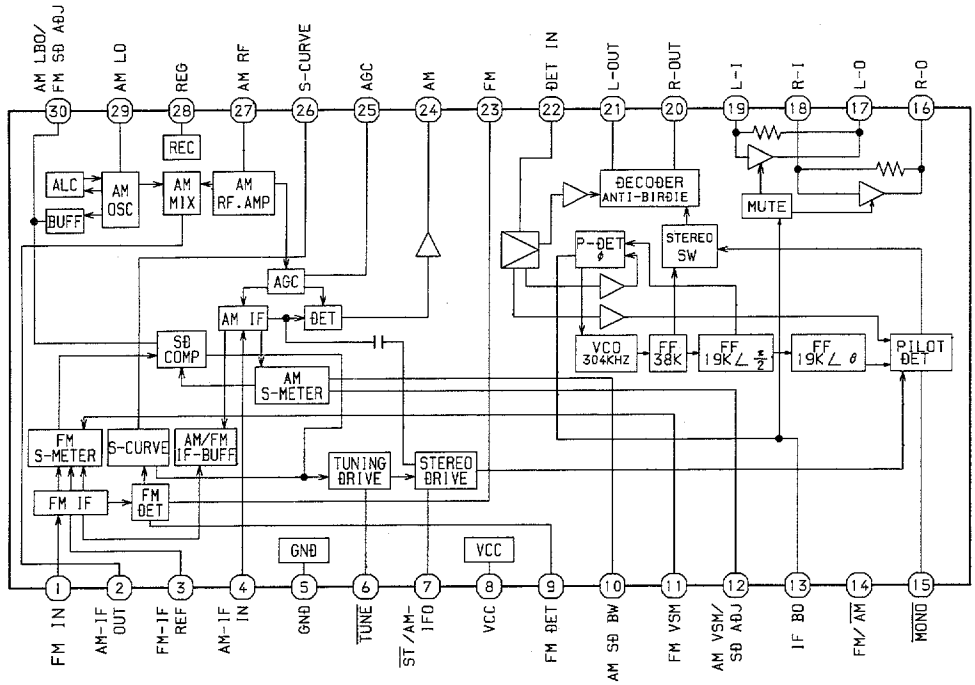
IC, HA12211



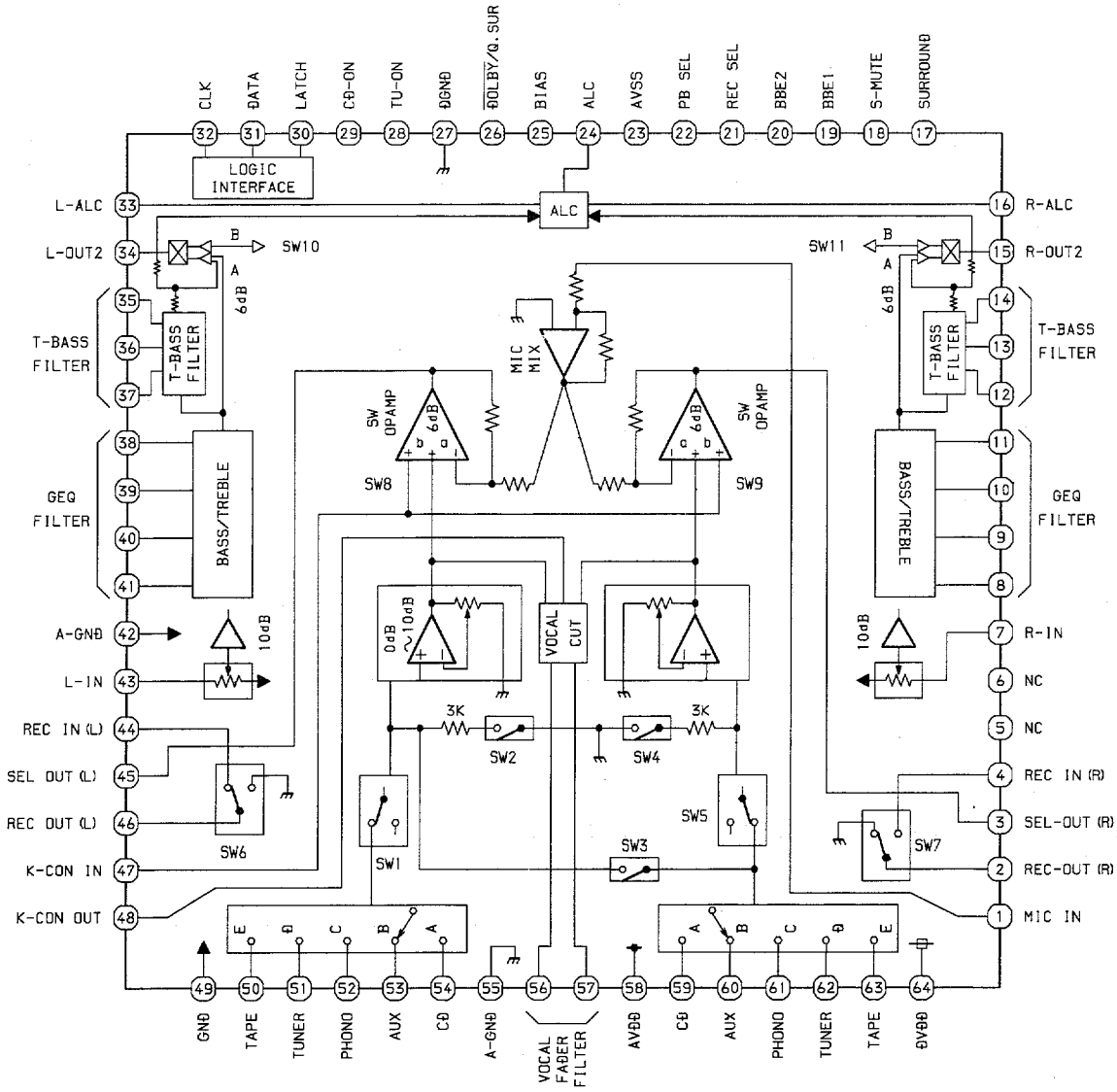
IC, BA3835F



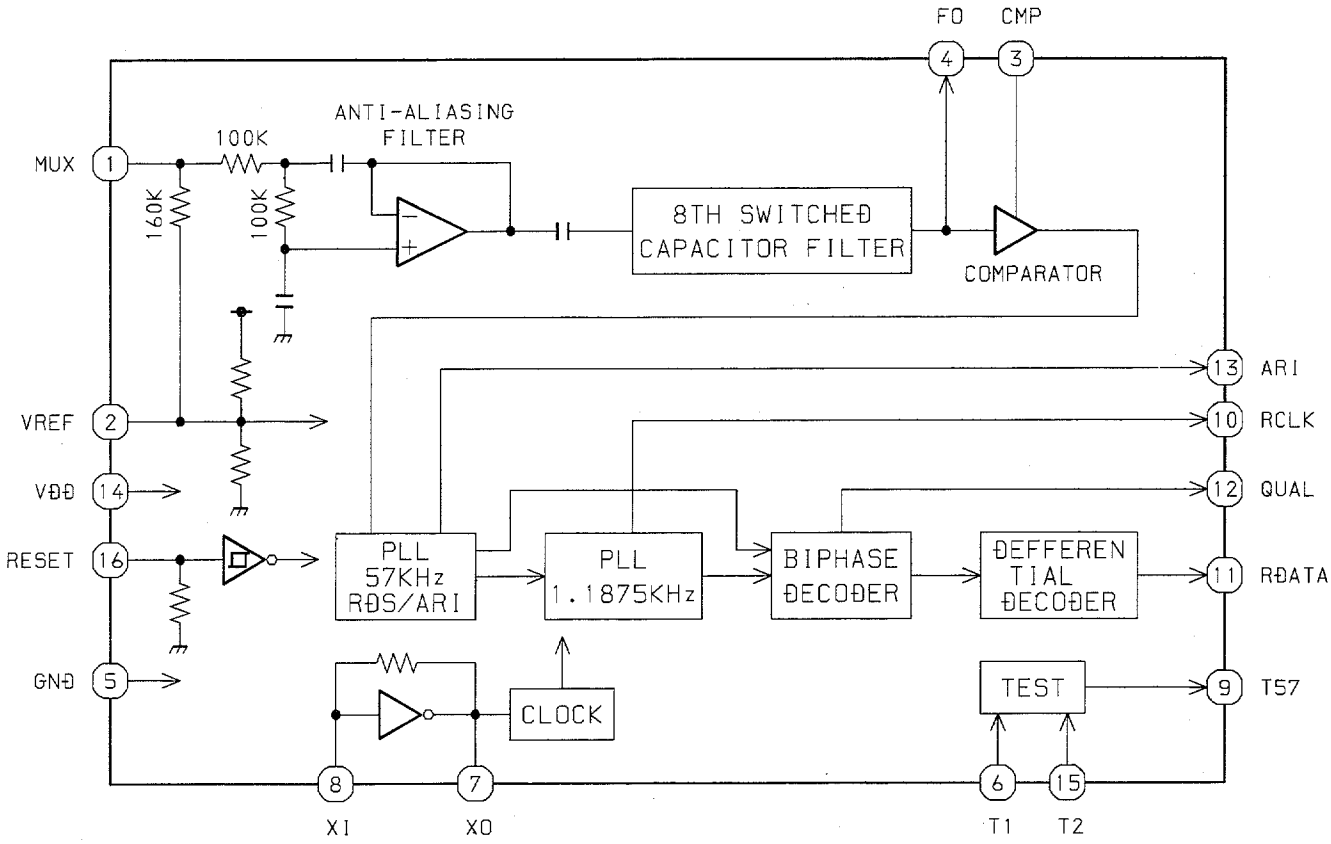
IC, LA1837NL



IC, M62445AFP



IC, BU1920FS


FO
CMP
4
3
MUX
1
100K
ANTI-ALIASING
FILTER
160K
100K
8TH SWITCHED
CAPACITOR FILTER
COMPARATOR
13
ARI
VREF
2
10
RCLK
VDD
14
12
QUAL
RESET
16
PLL
57KHz
RDS/ARI
PLL
1.1875KHz
BIPHASE
DECODER
DEFFEREN
TIAL
DECODER
11
RDATA
GND
5
CLOCK
TEST
9
T57
8
7
6
15
X1
XO
T1
T2

IC DESCRIPTION

IC, LC866560W-5K56

Pin No.	Pin Name	I/O	Description
1	CLK	O	CLOCK output for MAIN,FRONT PWB.
2	DATA	O	DATA output for MAIN, FRONT PWB.
3	STB (M)	O	Data latch strobe output.
4	O-PLL-CE	O	PLL IC chip enable output.
5	STB (F)	O	Latch strobe output for FRONT shift register.
6	$\overline{\text{O-LED TUNER}}$	O	Control tuner LED function.
7	$\overline{\text{O-LED TAPE}}$	O	Control tape LED function.
8	$\overline{\text{I-HP MUTE}}$	I	"L" input prologic, DSP off.
9	I-TM BASE	I	Reference clock input for timer watch.
10	O-MUTE	O	System mute output.
11	$\overline{\text{O-CLK SHIFT}}$	O	MICON clock shift output.
12	$\overline{\text{RESET}}$	I	Reset input.
13	JOG-A	I	Rotary encorder jog in.
14	JOG-B	I	Rotary encorder jog in.
15	VSS 1	–	GND.
16	CF 1	–	5.76MHz oscillator circuit.
17	CF 2	–	
18	VDD 1	–	Power supply input. Connect to VDD2.
19	$\overline{\text{HOLD}}$	I	Power failure detection input. POWER OFF: over 1.5V (continuance 500ms) – HOLD mode 2.5~4.5V – NORMAL condition under 2.5V – HOLD mode POWER ON: over 4.2V (continuance 500ms) – HOLD mode 2.8V~4.2V – NORMAL condition 0.7V~2.8V (continuance 500ms) – POWER OFF under 0.7V – HOLD mode
20	KEY-1	I	KEY input.(A/D)
21	KEY-2		
22	NC	I	Not used.
23	I-CD SW	I	CD mechanical switch A/D converter input.
24	I-DISH	I	CD turntable photo sensor A/D converter input.
25	I-TU-SIG	I	Tuner $\overline{\text{SD}}$ detected input.
26	I-SPEANA	I	A/D input for spectrum analyzer display.
27	$\overline{\text{O-KEYSCAN}}$	O	Switch scan timing output.
28	I-RDSCLK/I-SENS	I	During tuner function, RDS clock input. During CD function, CD IC control data bus input.
29	$\overline{\text{I-RMC}}$	I	System remote control signal input.
30~41	G13~G2	O	FL GRID output G13~G2.
42, 43	P35, P34	O	FL SEGMENT output P35, P34.
44	G1	O	FL GRID output G1.
45	P33	O	FL SEGMENT output P33.
46	VDD3	–	Power supply input. Connect to VDD4.
47	P32/SPEANA-A	O	FL segment P32 output / Spectrum analyzer BPF control A.
48	P31/SPEANA-B	O	FL segment P31 output / Spectrum analyzer BPF control B.

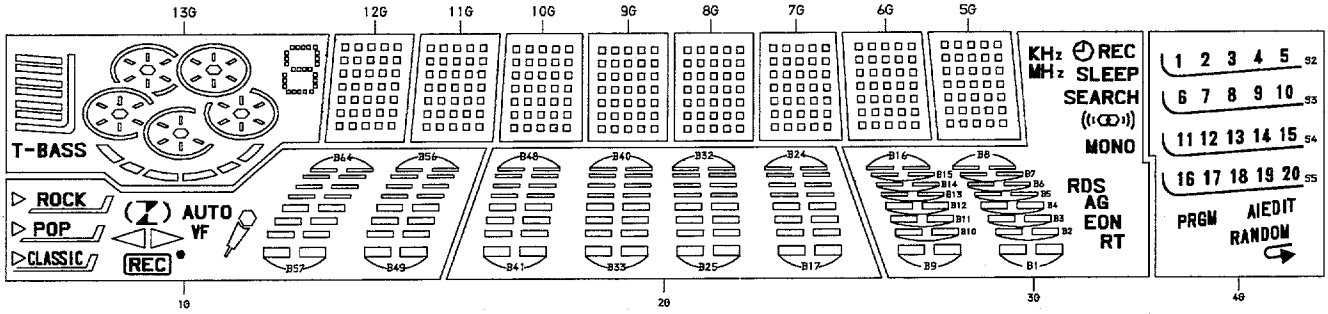
Pin No.	Pin Name	I/O	Description
49	P30/SPEANA-C	O	FL segment P30 output / Spectrum analyzer BPF control C.
50	P29	O	FL segment P29 output .
51	–VP	–	Power supply input for FL display.
52	P28/SEL3	I/O	FL segment P28 output / Tuner band select input 3.
53	P27/SEL2	O	FL segment P27output / Tuner band select input 2.(Not connected.)
54	P26/SEL1	O	FL segment P26 output / Tuner band select input 1. (Not connected.)
55	P25/PRO	O	FL segment P25 output / PROLOGIC diode detect. (Not connected.)
56	P24/AC3	O	FL segment P24 output / AC3+PROLOGIC diode detect. (Not connected.)
57	P23/ECO	O	FL segment P23 output /ECO diode detect. (Not connected.)
58	P22/PB2	I/O	FL segment P22 output / DECK2 playback switch input.
59	P21/PB1	I/O	FL segment P21 output / DECK1 playback switch input.
60	P20/REC	I/O	FL segment P20 output / REC switch input.
61	P19/DSP	O	FL segment P19 output / DSP diode detect. (Not connected.)
62	P18/$\overline{\text{DEMO}}$	O	FL segment P18 output / DEMO diode detect. (Not connected.)
63	P17/ILLUMI	O	FL segment P17 output / ILLUMINE diode detect. (Not connected.)
64~71	P16~P9	O	FL segment P16~P9 output.
72	VDD4	–	Power supply input. Connect to VDD3.
73~80	P8~P1	O	FL segment P8~P1 output.
81,82	I-VOL B/A	I	Rotary encorder volume in B/A.
83	TRAY-OPN	O	CD tray open data output.
84	TRAY-CLS	O	CD tray close data output.
85	DISH-RVS	O	CD turntable reverse rotation output.
86	DISH-FWD	O	CD turntable forward rotation output.
87	O-CD LED	O	CD LED control output.
88	NC	–	Not connected.
89	VSS2	–	GND.
90	VDD2	–	Power supply input. Connect to VDD1.
91	O-POWER	O	System power supply $\overline{\text{ON}}$ / OFF output.
92	O-$\overline{\text{LED CD}}$	O	Function LED CD control.
93	O-$\overline{\text{LED AUX}}$	O	Function LED AUX control.
94	O-$\overline{\text{LED PHONO}}$	O	Function LED PHONO control.
95	O-MOTOR	O	DECK MOTOR output.
96	I-IFC/I-SD	I	Tune IF count serial data input / CD IC data input.
97	I-STEREO/O-SCLK	I/O	Tuner stereo detected input / CD IC control data bus clock output.
89	O-CD CLK	O	CD IC control clock output.
99	O-CD XLK	O	CD IC control latch strobe output.
100	I-RDS DATA/ O-CD DATA	I/O	RDS data input / CD IC control data output.

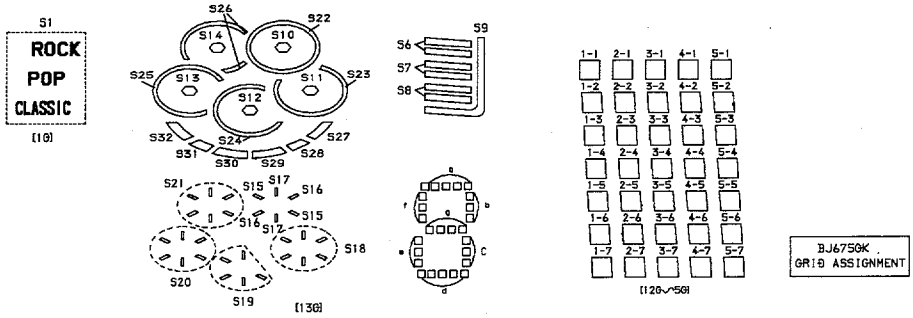
IC, LC72131

<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>1</td><td>XIN</td><td rowspan="2">I/O</td><td rowspan="2">A crystal oscillator (7.2MHz) is connected between these pins.</td></tr>
<tr><td>22</td><td>XOUT</td></tr>
<tr><td>2</td><td>NC</td><td>–</td><td>Not used.</td></tr>
<tr><td>3</td><td>CE</td><td>I</td><td>To enable the IC. Active "H".</td></tr>
<tr><td>4</td><td>DI</td><td>I</td><td>Digital data input from CPU when relevant key is operated.
Active "H".</td></tr>
<tr><td>5</td><td>CL</td><td>I</td><td>To clock in the data DI.</td></tr>
<tr><td>6</td><td>DO</td><td>O</td><td>Digital data output to CPU.</td></tr>
<tr><td>7</td><td>T-BASE</td><td>O</td><td>Outputs a reference clock signal (8Hz) for the clock.</td></tr>
<tr><td>8</td><td>$\overline{\text{MONO}}$ / BEAT</td><td>O</td><td>Outputs "H" when BEAT is switched.</td></tr>
<tr><td>9</td><td>$\overline{\text{FM}}$ / $\overline{\text{SW}}$</td><td>O</td><td>Outputs "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><td>AM</td><td>FM</td><td>LW</td><td>MW</td><td>FM</td><td>MW</td><td>SW</td><td>FM</td></tr>
<tr><td>H</td><td>L</td><td>H</td><td>H</td><td>L</td><td>H</td><td>L</td><td>L</td></tr>
</table></td></tr>
<tr><td>10</td><td>$\overline{\text{MW}}$/SW</td><td>O</td><td>Outputs "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><td>AM</td><td>FM</td><td>LW</td><td>MW</td><td>FM</td><td>MW</td><td>SW</td><td>FM</td></tr>
<tr><td>L</td><td>L</td><td>H</td><td>L</td><td>L</td><td>L</td><td>H</td><td>L</td></tr>
</table></td></tr>
<tr><td>11</td><td>IF-MUTE</td><td>O</td><td>To control internal counter.</td></tr>
<tr><td>12</td><td>IFIN</td><td>I</td><td>General purpose counter input.</td></tr>
<tr><td>13</td><td>$\overline{\text{TUNE}}$</td><td>I</td><td>Receives "L" when station is tuned.</td></tr>
<tr><td>14</td><td>NC</td><td>–</td><td>Not used.</td></tr>
<tr><td>15</td><td>AM IN</td><td>I</td><td>Receives the AM local oscillator frequency signal.</td></tr>
<tr><td>16</td><td>FM IN</td><td>I</td><td>Receives the FM local oscillator frequency signal.</td></tr>
<tr><td>17</td><td>VDD</td><td>–</td><td>Supply power to IC (+5V).</td></tr>
<tr><td>18</td><td>PD</td><td>O</td><td>PLL charge pump output.</td></tr>
<tr><td>19</td><td>AIN</td><td>I</td><td rowspan="2">The MOS transistor for PLL active low pass filter.</td></tr>
<tr><td>20</td><td>AOUT</td><td>O</td></tr>
<tr><td>21</td><td>VSS</td><td>–</td><td>Ground.</td></tr>
</table>

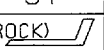
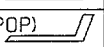
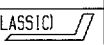
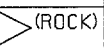
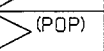
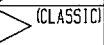
FL (BJ675GK) GRID ASSIGNMENT & ANODE CONNECTION

GRID ASSIGNMENT

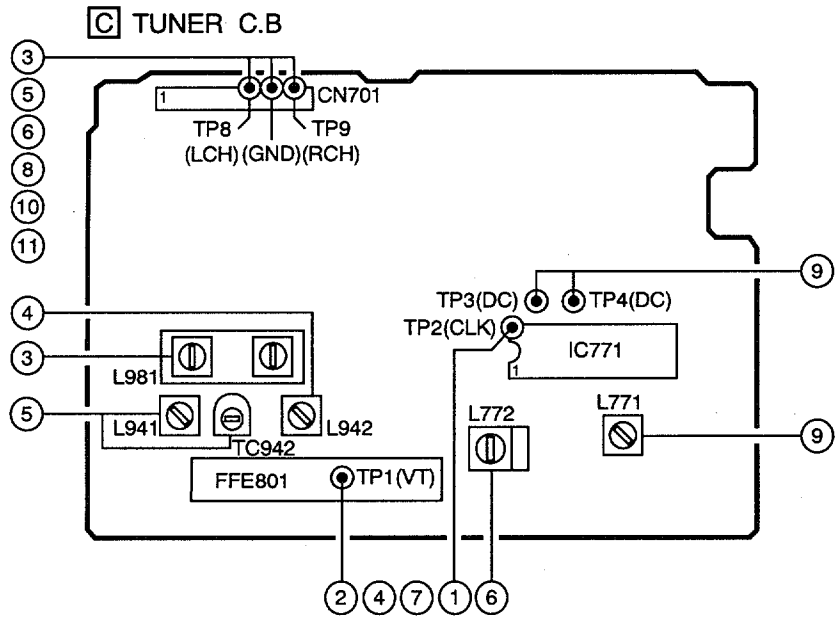




ANODE CONNECTION

	1G	2G	3G	4G	5G~12G	13G
P1	B64	B48	B16		5-7	S32
P2	B56	B40	B8	**RANDOM**	4-7	S31
P3	B63	B32	B15	**PRGM**	3-7	S30
P4	B55	B24	B7	**AI**	2-7	S29
P5	B62	B47	B14	**EDIT**	1-7	S28
P6	B54	B39	B6	**20**	5-6	S27
P7	B61	B31	B13	**19**	4-6	S25
P8	B53	B23	B5	**18**	3-6	S20
P9	B60	B46	B12	**17**	2-6	S13
P10	B52	B38	B4	**16**	1-6	S26
P11	B59	B30	B11	**15**	5-5	S21
P12	B51	B22	B3	**14**	4-5	S14
P13	B58	B45	B10	**13**	3-5	S24
P14	B50	B37	B2	**12**	2-5	S19
P15	B57	B29	B9	**11**	1-5	S12
P16	B49	B21	B1	**10**	5-4	S23
P17		B44	**MONO**	**9**	4-4	S18
P18	**AUTO**	B36		**8**	3-4	S11
P19	**VF**	B28	**SEARCH**	**7**	2-4	S22
P20		B20	**SLEEP**	**6**	1-4	S17
P21		B43	**REC**	**5**	5-3	S16
P22		B35		**4**	4-3	S15
P23		B27	**KHz**	**3**	3-3	S10
P24		B19	**MHz**	**2**	2-3	d
P25		B42	**RDS**	**1**	1-3	e
P26		B34	**AG**	S2	5-2	c
P27	S1	B26	**EON**	S3	4-2	g
P28		B18	**RT**	S4	3-2	f
P29		B41	—	S5	2-2	b
P30		B33	—	—	1-2	a
P31		B25	—	—	5-1	S9
P32		B17	—	—	4-1	S8
P33		—	—	—	3-1	S7
P34	—	—	—	—	2-1	S6
P35	—	—	—	—	1-1	**T-BASS**

ADJUSTMENT <TUNER / DECK / FRONT>



< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to MW 1602kHz and check that the test point is 2052kHz ± 45Hz.

2. MW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1602kHz and check that the test point is less than 8.0V. Then set to MW 531kHz and check that the test point is more than 0.6V.

3. MW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : L981 (1/3)
   Method : Set to MW 999kHz and adjust L981 (1/3) so that the test point becomes maximum.

4. LW VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L942
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V ± 0.05V.
   Then set to LW 290kHz and check that the test point is less than 8.0V.

5. LW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L941 ..... 144kHz
   TC942 ..... 290kHz
   Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to MAX by L941. Then the level at 290kHz is adjusted to MAX by TC942.

6. AM IF Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L772 ..... 450kHz

7. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 108.0MHz and check that the test point is less than 8.0V. Then set to FM 87.5MHz and check that the test point is more than 0.5V.

8. FM Tracking Check
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 13dBμV.

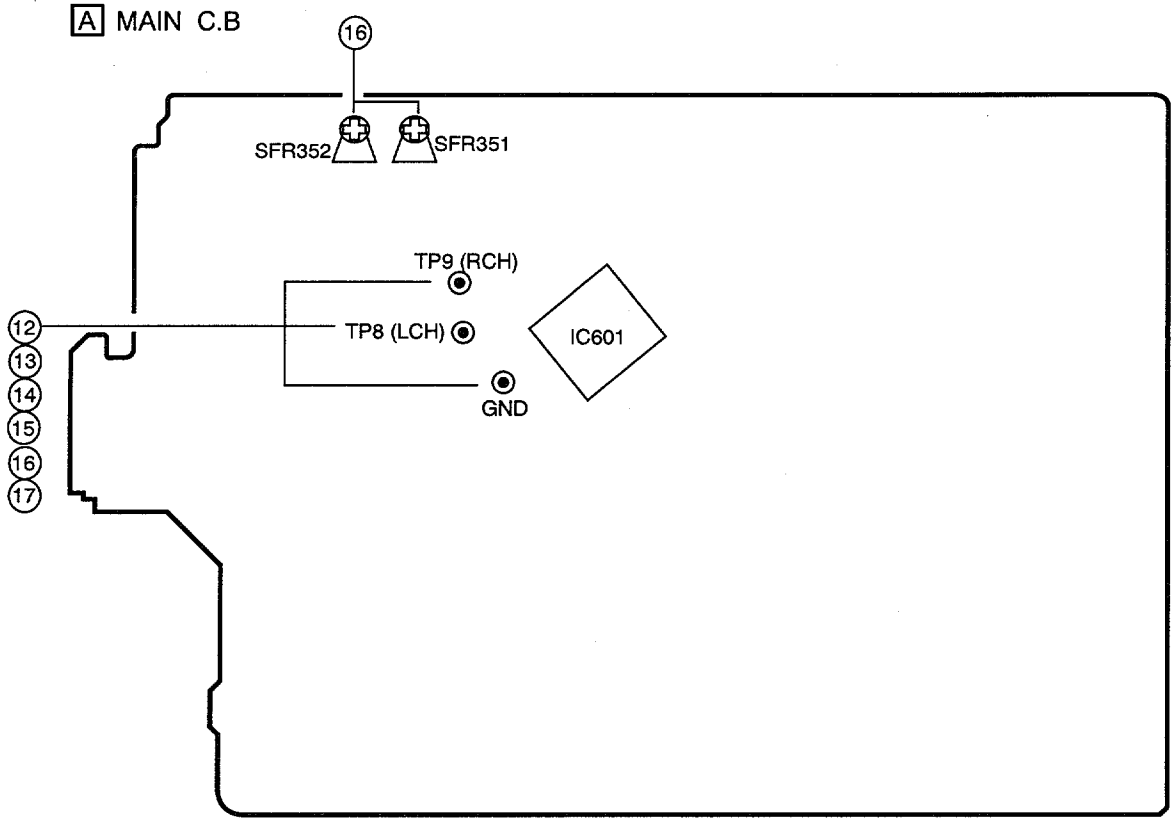
9. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3,TP4 (DC balance)
   • Adjustment location : L771
   • Input level : 60dBμV
   Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V.
   Next, check that the distortion is less than 1.3%.

10. Output Level Check
    <MW>
    Settings : • Test point : TP8 (Lch), TP9 (Rch)
    • Input level : 74dBμV
    Method : Set to MW 999kHz and check that the test point is 130mV ± 3dB.

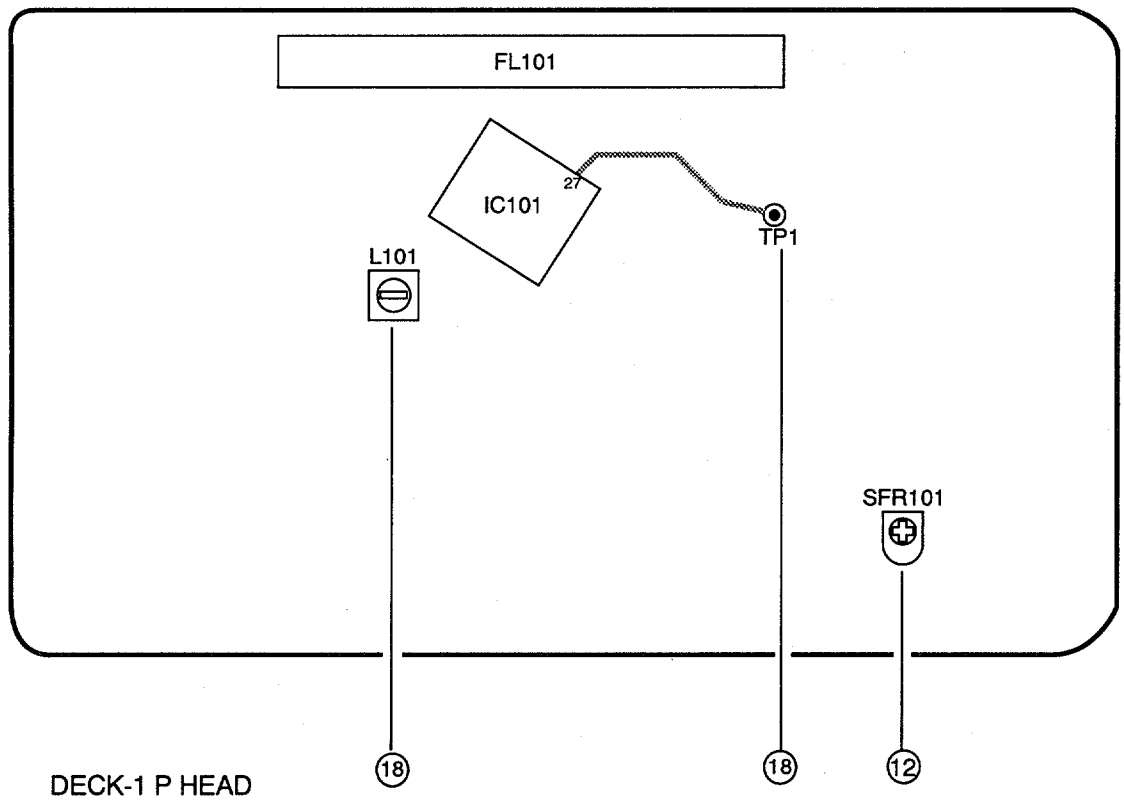
    <FM>
    Settings : • Test point : TP8 (Lch), TP9 (Rch)
    • Input level : 60dBμV
    Method : Set to FM 98.0MHz and check that the test point is 520mV ± 3dB.

11. FM Separation Check
    Settings : • Test point : TP8 (Lch), TP9 (Rch)
    • Input level : 60dBμV
    Method : Set to FM 98.0MHz and check that the test point is more than 25dB.

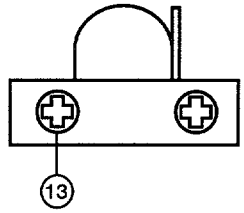
A MAIN C.B



B FRONT C.B



DECK-1 P HEAD
DECK-2 R/P/E HEAD



< DECK SECTION >

12. Tape Speed Adjustment (DECK 1, DECK 2)
Settings : • Test tape : TTA–100
• Test point : TP8(Lch), TP9(Rch)
• Adjustment location : SFR101
Method : Play back the test tape and adjust SFR101 so that the frequency counter reads 3000Hz ± 5Hz and ±45Hz (REV) with respect to forward speed.

13. Head Azimuth Adjustment (DECK 1, DECK 2)
Settings : • Test tape : TTA–330
• Test point : TP8(Lch), TP9(Rch)
• Adjustment location : Head azimuth adjustment screw
Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on REV PLAY mode.

14. PB Frequency Response Check (DECK 1, DECK 2)
Settings : • Test tape : TTA–330
• Test point :TP8(Lch), TP9(Rch)
Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.

15. PB Sensitivity Check (DECK 1, DECK 2)
Settings : • Test tape : TTA–200
• Test point : TP8(Lch), TP9(Rch)
Method : Play back the test tape and check that the output level of the test point is 300mV ± 3dB.

16. REC/PB Frequency Response Adjustment (DECK 2)
Settings : • Test tape : TTA–602
• Test point : TP8(Lch), TP9(Rch)
• Input signal : 1kHz / 10kHz (LINE IN)
• Adjustment location : SFR351 (Lch)
SFR352 (Rch)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes -20VU(-30.2dBV). Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

17. REC/PB Sensitivity Check (DECK 2)
Settings : • Test tape : TTA–602
• Test point : TP8(Lch), TP9(Rch)
• Input signal : 1kHz (LINE IN)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU (-10.2dBV). Record and play back the 1kHz signals and check that the output is 0dB ± 3.5dB.

< FRONT SECTION >

18. μ-CON OSC Adjustment
Settings : • Test point : TP1 (IC101 Pin 27)
• Adjustment location : L101
Method : Insert AC plug with pressing TUNER function key. Adjust L101 so that the frequency across the test point is 130.430Hz ± 1.3Hz.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity :	Less than 14 / 13 / 13dBμV
(THD 3%)	[at 87.5 / 98.0 / 108.0MHz]
S/N 50dB Quieting sensitivity :	Less than 38dBμV [at 98.0MHz]
Signal to noise ratio :	Mono : More than 68dB Stereo : More than 64dB [at 98.0MHz]
Distortion :	Mono : Less than 1.2% Stereo : Less than 2.0% [at 98.0MHz]
Auto stop level :	25dBμV ± 10dB [at 98.0MHz]
Stereo separation :	More than 12dB [at 98.0MHz]
Intermediate frequency :	10.7MHz

<MW SECTION>

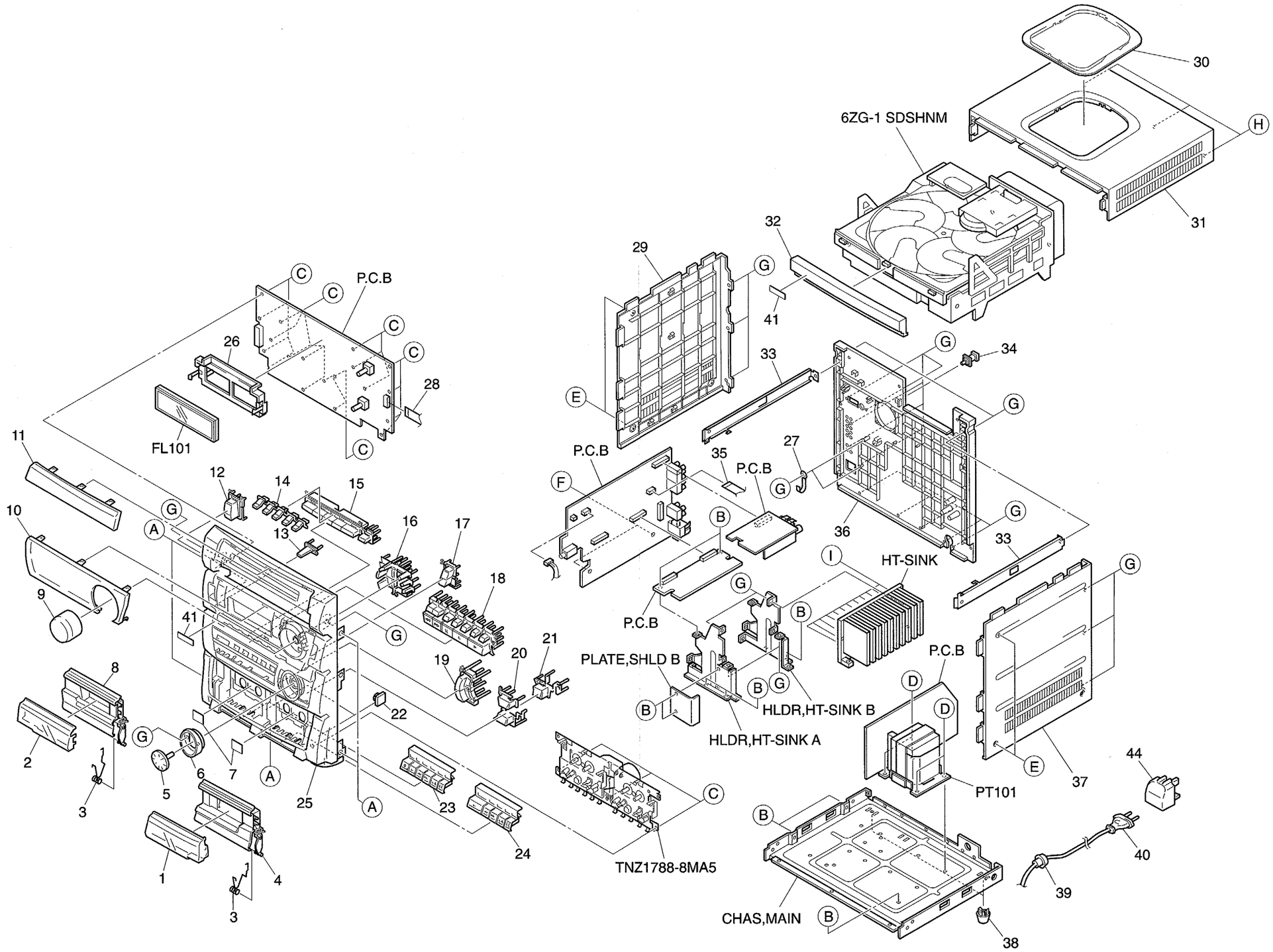
Sensitivity :	Less than 60 / 58 / 58dBμV [at 603 / 999 / 1404kHz]
Signal to noise ratio :	More than 36dB [at 999kHz]
Distortion :	Less than 1.5% [at 999kHz]
Auto stop level :	52dBμV +10/-15dB [at 999kHz]
Intermediate frequency :	450kHz

<LW SECTION>

Sensitivity :	Less than 70 / 68 / 66dBμV [at 144 / 198 / 290kHz]

<DECK SECTION>

Tape speed :	3000Hz ± 45Hz
Wow & flutter :	Less than 0.35% (R.M.S)
Take-up torque :	30 ~ 60g-cm (FWD)
Back tension :	2 ~ 5g-cm
PB output level :	230mV ± 3dB
REC/PB output level :	160mV ± 3.0dB (0VU, NORM)
Distortion (REC/PB) :	Less than 2.0% (0VU, NORM)
Noise level (PB) :	Less than 1.3mV (NORM, FILTER DIN AUDIO)
Noise level (REC/PB) :	Less than 2.0mV (NORM, FILTER DIN AUDIO)
Erasing ratio :	More than 60dB (at 125Hz, +10VU)
Test tape :	TTA–602 (NORMAL) TTA–615 (CrO2)


30
6ZG-1 SDSHNM
H
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G
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P.C.B
C
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FL101
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A
F
E
33
34
35
27
36
HT-SINK
I
P.C.B
PLATE,SHLD B
HLDR,HT-SINK B
HLDR,HT-SINK A
TNZ1788-8MA5
D
PT101
37
44
40
39
38
CHAS,MAIN
B

MECHANICAL PARTS LIST 1 / 1

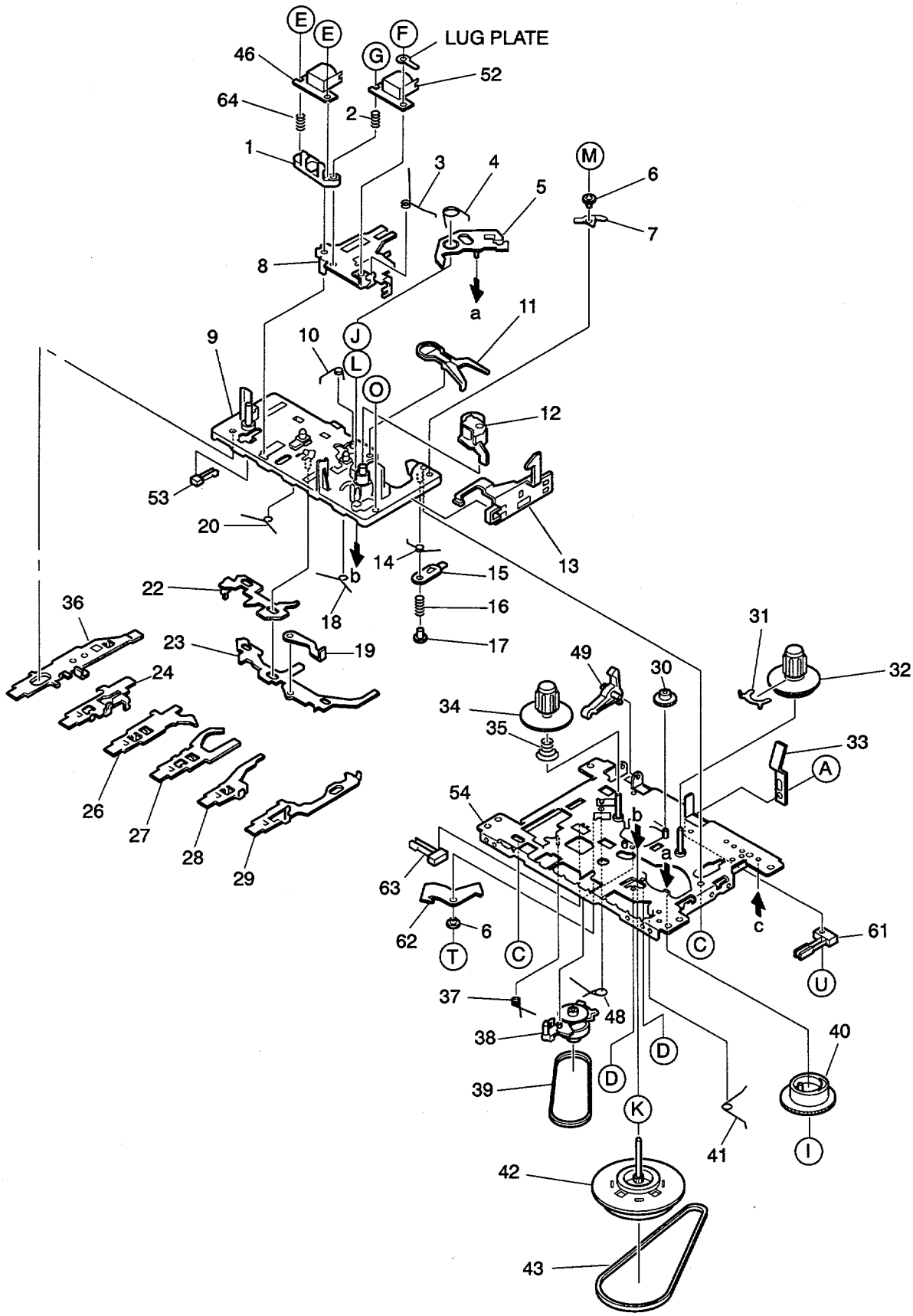
If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-MA4-026-010		WINDOW,CASS R
2	8Z-MA4-025-010		WINDOW,CASS L
3	83-MA2-205-110		SRR-T,EJECT
4	8Z-MA4-007-110		BOX,CASS,R
5	8Z-MA4-042-010		KNOB,RTRY JOG
6	8Z-MA4-044-010		REFLECTOR,JOG
7	81-532-080-010		LABEL, CASS. COMPT
8	8Z-MA4-006-110		BOX,CASS L
9	8Z-MA4-041-010		KNOB,RTRY VOL
10	8Z-MA4-024-010		WINDOW,AMP(RDS)
11	8Z-MA4-027-010		WINDOW,CD
12	8Z-MA4-030-010		KEY,POWER
13	8Z-MA4-051-010		REFLECTOR,POWER
14	8Z-MA4-043-010		REFLECTOR,FUN
15	8Z-MA4-033-010		KEY,FUN
16	8Z-MA4-040-010		KEY,RDS
17	8Z-MA4-032-010		KEY,T-BASS
18	8Z-MA4-046-010		KEY,ASSY PLAY
19	8Z-MA4-035-010		KEY,CLOCK
20	8Z-MA4-037-010		KEY,ENTER
21	8Z-MA4-036-010		KEY,GEQ
22	86-NFZ-231-010		DMPR,70
23	8Z-MA4-038-010		KEY,CASS L
24	8Z-MA4-039-010		KEY,CASS R
25	8Z-MA4-003-010		CABI,FR K
26	87-MA5-203-010		GUIDE,FL
27	87-064-185-010		HLDR,WIRE
28	88-914-231-110		FF-CABLE 14P 1.25
29	8Z-MA4-028-010		PANEL,SIDE L
30	86-MA3-042-010		WINDOW,TOP
31	8Z-MA4-057-010		PANEL,TOP
32	8Z-MA4-017-010		PANEL,TRAY
33	88-MA1-208-110		JOINT,CABI
34	84-ZG1-245-210		CAP,OPTICAL
35	88-906-301-110		FF-CABLE,6P-1.25
36	8Z-MA4-012-010		CABI,REAR EZ
37	8Z-MA4-029-010		PANEL,SIDE R
38	87-MA3-062-010		FOOT, H17
39	87-085-185-010		BUSHING, AC CORD (E)
⚠ 40	87-050-079-010		AC-CORD ASSY,E
41	82-NE6-067-010		BADGE,AIWA 30N
A	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
B	87-067-584-010		TAPPING SCREW, BVT2+3-6
C	87-078-060-010		BVIT3PB+3-10
D	87-067-975-010		S-SCREW,IT+4-8
E	87-067-641-010		UTT2+3-8(W/O SLOT)BL
F	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
G	87-067-703-010		TAPPING SCREW, BVT2+3-10
H	87-067-758-010		BVT2+3-12 W/O SLOT
I	87-067-001-010		S-SCREW,BVWWST2-3-12 W/O

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange		

TAPE MECHANISM EXPLODED VIEW 1 / 2

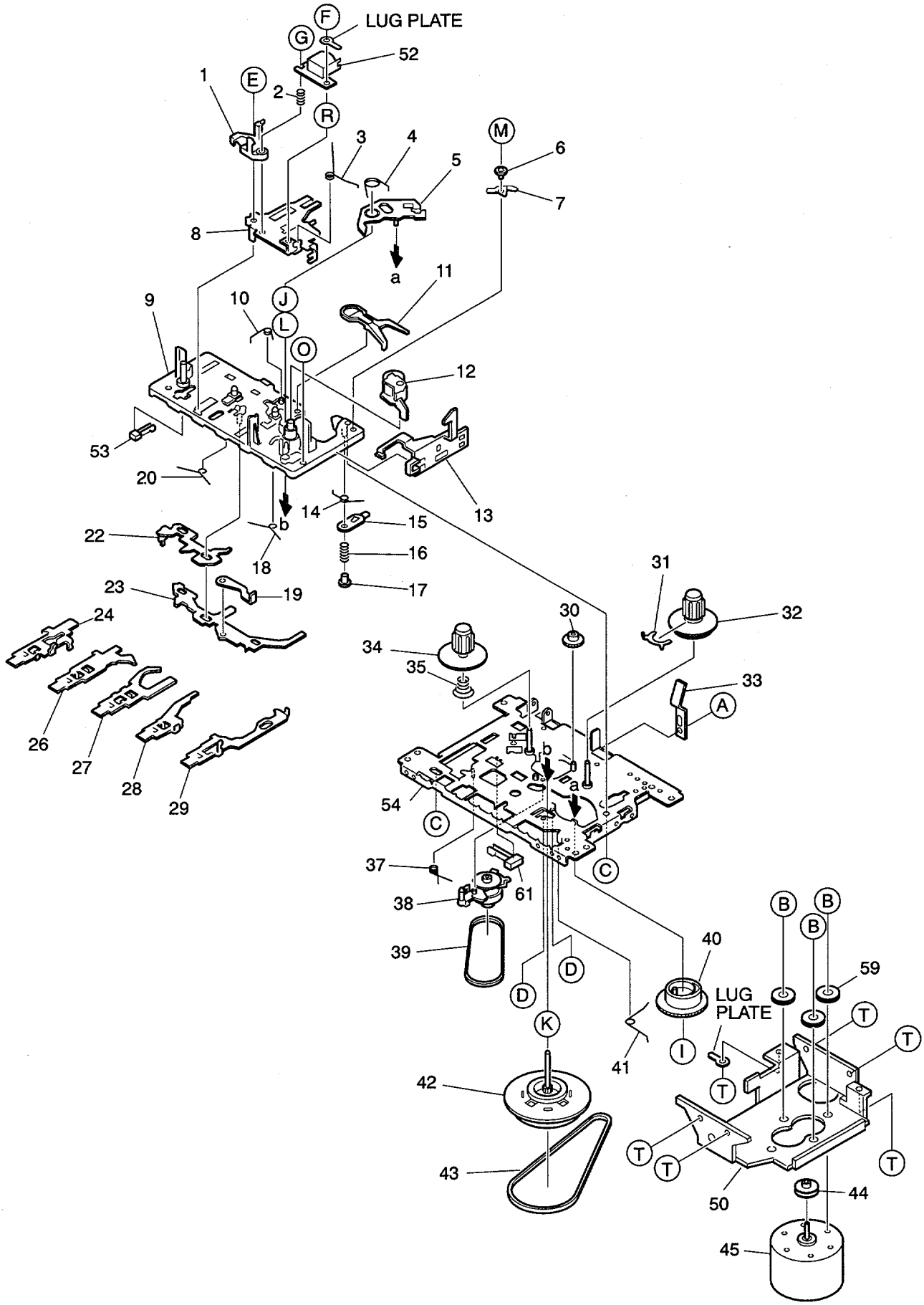


TAPE MECHANISM PARTS LIST 1 / 2

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	S1-921-030-060		HEAD BASE
2	S1-821-030-070		AZIMUTH SPRING
3	S1-921-030-090		PANEL P SPRING
4	S1-921-260-050		GEAR PLATE SPRING
5	S1-921-265-020		GEAR PLATE ASSY
6	S1-921-140-370		P ARM COLLER
7	S1-921-140-340		P ARM
8	S1-921-030-140		HEAD PANEL
9	S1-921-143-170		BASE ASSY
10	S1-921-141-8A0		M CONTROL SPRING
11	S1-921-260-4A0		SENSING LEVER
12	S1-921-043-100		PINCH ROLLER ARM ASSY
13	S1-921-130-020		EJECT SLIDE LEVER
14	S1-921-141-3A0		P CONTROL SPRING
15	S1-921-140-550		PAUSE LEVER(E)
16	S1-921-140-120		PAUSE LEVER SPRING
17	S1-921-140-110		PAUSE STOPPER
18	S1-921-140-150		BUTTON LEVER SPRING(B)
19	S1-921-140-640		E KICK LEVER
20	S1-921-140-140		BUTTON LEVER SPRING(A)
22	S1-921-140-090		SWITCH ACTUATOR
23	S1-921-140-080		PUSH BUTTON ACTUATOR
24	S1-921-140-230		PLAY BUTTON LEVER
26	S1-921-140-240		REW BUTTON LEVER
27	S1-921-140-250		FF BUTTON LEVER
28	S1-921-140-660		STOP BUTTON LEVER
29	S1-921-140-610		PAUSE BUTTON LEVER
30	S1-821-100-700		FF GEAR
31	S1-921-050-060		SENSER
32	S1-921-053-100		TAKE UP REEL ASSY
33	S1-829-100-010		PACK SPRING
34	S1-921-050-150		S REEL HUB
35	S1-921-050-220		BACK TENSION SPRING
36	S1-921-140-220		REC BUTTON LEVER
37	S1-921-140-170		P.S.LEVER SPRING
38	S1-921-073-080		RF CLUTCH ASSY
39	S1-821-070-110		RF BELT
40	S1-921-260-020		CAM GEAR
41	S1-921-140-160		E ACTUATOR SPRING
42	S1-921-093-210		FLYWHEEL ASSY
43	S1-921-090-240		MAIN BELT
46	S6-202-140-190		E,HEAD
48	S1-921-140-210		REC BUTTON LEVER SPRING
49	S1-821-100-690		RECORD SAFETY LEVER
52	S6-202-010-920		R.P HEAD MS15R-AK0N1
53	S6-401-011-490		LEAF SW MSW-1541T
54	S1-921-015-010		CHASSIS ASSY
61	S6-401-010-380		LEAF SWITCH MSW-1275
62	S1-921-020-010		REC ARM
63	S6-401-011-610		LEAF SW MSW-17820MVE1
64	S1-821-030-080		EH SPRING
A	S9-P04-200-310		TAPPING SCREW 2-3
C	S9-B10-200-510		P TAPPING BIND ACREW M2-5
D	S9-C07-204-510		SCREW,TAPPING M2-4.5
E	S9-P17-205-710		+-CAP SCREW M2-7.5
F	S9-B01-200-310		+ BIND SCREW M2-3
G	S9-F08-200-710		AZIMUTH SCREW M2-7
I	S9-W02-300-100		P WASHER CUT 1.2-3.8-0.3
J	S9-W02-500-100		P WASHER CUT 1.45-3.8-0.5
K	S9-W01-400-100		P WASHER 2-3.5-0.4
L	S9-W01-130-200		P WASHER 2.1-4-0.13
M	S9-P08-203-010		PS TAPPING SCREW M2-5
O	S9-P05-200-610		S TAPPING SCREW M2-6
T	S9-P04-200-410		C TAPPING SCREW M2-4
U	S9-P04-200-510		C TAPPING SCREW M2-5

TAPE MECHANISM EXPLODED VIEW 2 / 2



TAPE MECHANISM PARTS LIST 2 / 2

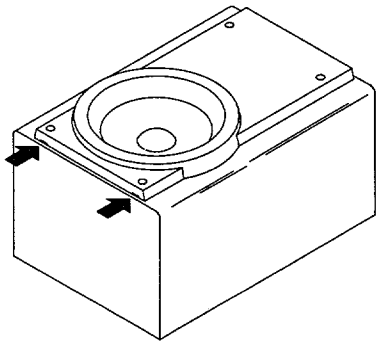
If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	S1-921-030-4A0		HEAD BASE
2	S1-821-030-070		AZIMUTH SPRING
3	S1-921-030-090		PANEL P SPRING
4	S1-921-260-050		GEAR PLATE SPRING
5	S1-921-265-020		GEAR PLATE ASSY
6	S1-921-140-370		P ARM COLLER
7	S1-921-140-340		P ARM
8	S1-921-030-110		HEAD PANEL
9	S1-921-143-010		BASE ASSY
10	S1-921-141-8A0		M CONTROL SPRING
11	S1-921-260-4A0		SENSING LEVER
12	S1-921-043-100		PINCH ROLLER ARM ASSY
13	S1-921-130-020		EJECT SLIDE LEVER
14	S1-921-141-3A0		P CONTROL SPRING
15	S1-921-140-550		PAUSE LEVER(E)
16	S1-921-140-120		PAUSE LEVER SPRING
17	S1-921-140-110		PAUSE STOPPER
18	S1-921-140-150		BUTTON LEVER SPRING(B)
19	S1-821-011-590		E KICK LEVER
20	S1-921-140-140		BUTTON LEVER SPRING(A)
22	S1-921-140-090		SWITCH ACTUATOR
23	S1-921-140-080		PUSH BUTTON ACTUATOR
24	S1-921-140-230		PLAY BUTTON LEVER
26	S1-921-140-240		REW BUTTON LEVER
27	S1-921-140-250		FF BUTTON LEVER
28	S1-921-140-260		STOP BUTTON LEVER
29	S1-921-140-610		PAUSE BUTTON LEVER
30	S1-821-100-700		FF GEAR
31	S1-921-050-060		SENSER
32	S1-921-053-100		TAKE UP REEL ASSY
33	S1-829-100-010		PACK SPRING
34	S1-921-050-150		S REEL HUB
35	S1-921-050-220		BACK TENSION SPRING
37	S1-921-140-170		P.S.LEVER SPRING
38	S1-921-073-080		RF CLUTCH ASSY
39	S1-821-070-110		RF BELT
40	S1-921-260-020		CAM GEAR
41	S1-921-140-160		E ACTUATOR SPRING
42	S1-921-093-240		FLYWHEEL ASSY
43	S1-921-090-240		MAIN BBELT
44	S1-921-120-130		MOTOR PULLEY
45	S6-002-030-290		MOTOR EG530YD-2BH
50	S1-921-120-110		MOTOR BRACKET
52	S6-202-010-920		R.P HEAD MS15R-AK0N1
53	S6-401-011-490		LEAF SW MSW-1541T
54	S1-921-015-010		CHASSIS ASSY
59	S1-820-130-060		MOTOR RUBBER
61	S6-401-011-610		LEAF SW MSW-17820MVE1
A	S9-P04-200-310		TAPPING SCREW 2-3
B	S1-821-120-020		MOTOR COLLER SCREW
C	S9-B10-200-510		P TAPPING BIND ACREW M2-5
D	S9-C07-204-510		SCREW,TAPPING M2-4.5
E	S9-P01-200-610		SCREW M2-6
F	S9-B01-200-310		+ BIND SCREW M2-3
G	S9-F08-200-710		AZIMUTH SCREW M2-7
I	S9-W02-300-100		P WASHER CUT 1.2-3.8-0.3
J	S9-W02-500-100		P WASHER CUT 1.45-3.8-0.5
K	S9-W01-400-100		P WASHER 2-3.5-0.4
L	S9-W01-130-200		P WASHER 2.1-4-0.13
M	S9-P08-203-010		PS TAPPING SCREW M2-5
O	S9-P05-200-610		S TAPPING SCREW M2-6
T	S9-P04-200-410		C TAPPING SCREW M2-4

SPEAKER DISASSEMBLY INSTRUCTIONS

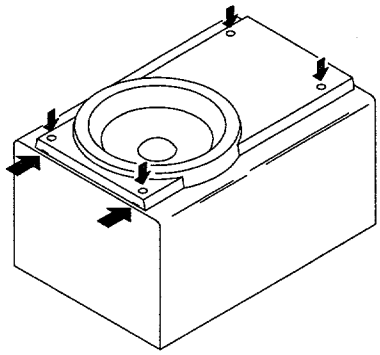
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



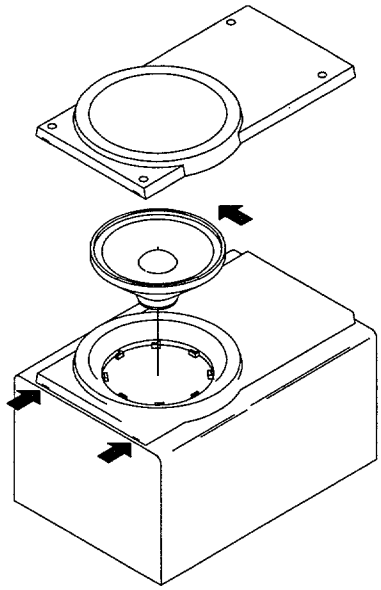
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

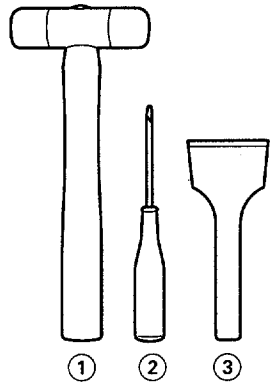


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4



TOOLS

① Plastic head hammer
② (⊖) flat head screwdriver
③ Cut chisel

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

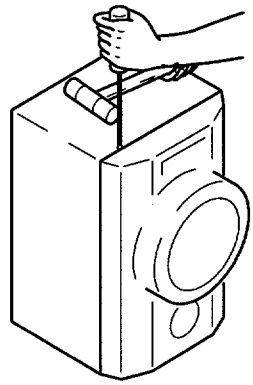


Fig-1

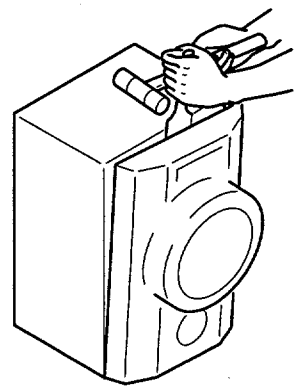


Fig-2

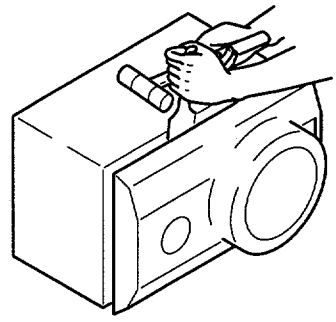


Fig-3

How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SX-WZL30 (YSTL)
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-MS4-008-010		PANEL,FR N
2	8Z-MS4-003-010		PROTECTOR,
3	8Z-MS4-601-010		SPKR, W 200
4	8Z-MS4-603-010		SPKR, M 120
5	8Z-NSY-608-010		SPKR, CERAMIC ASSY
6	88-NS3-605-010		CAP,
7	88-NS5-611-010		CORD,SPKR B/L
8	88-MS1-610-010		CORD,SPKR
9	8Z-MS4-009-010		GRILLE,FRAME ASSY

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-MA4-905-010		IB,K(E)M
2	8Z-NF9-701-110		RC UNIT,ZAS02
3	87-A90-030-010		ANT,LOOP AM-NC C
4	87-A90-118-010		ANT,WIRE FM (Z)

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
G— —	
G— —	
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Tokyo Japan

Printed in Singapore